HPS
Harvard Project Services LLC

Via U.S. Mail

November 12, 2007

Joe LeMay
Remedial Project Manager
US EPA – Region I
1 Congress Street, Suite 1100 (HBO)
Boston, MA 02114-2023

Re: Year 15 Annual Report, UniFirst Corporation
Wells G&H Site, Woburn, MA

Dear Mr. LeMay:

On behalf of UniFirst Corporation, I am submitting the report "RD/RA Year 15 Annual Report for the UniFirst Site."

Should you have any questions, please call.

Sincerely,

Timothy M. Cosgrave
Project Manager

TMC:hs
enclosure

cc: Jennifer McWeeney, BWSC, DEP
David Sullivan, TRC
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RD/RA Year 15 Annual Report For The UniFirst Site

Remedial Action at the Northeast Quadrant of the Wells G & H Site, Woburn, Massachusetts

Groundwater Extraction, Treatment, Monitoring & Capture System Performance

Prepared for:
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887

Submitted to:
U.S. Environmental Protection Agency
Region I

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November 12, 2007

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APPENDICES

1 INTRODUCTION

This document is the Fifteenth Annual Report for the UniFirst Remedial Action, prepared pursuant to the Consent Decree (Civil Action No. 91-11807-MA) Statement of Work, Section VIII (B) (5), as further described in the "Operation and Maintenance Plan - the UniFirst Site", dated February 1, 1993, and revised March 1994, August 2004 and July 2007. This Annual Report describes operation of the groundwater extraction and treatment system during the period of October 1, 2006 to September 30, 2007. The report summarizes and discusses the results of the water-level measurements and water-quality analyses from wells on the UniFirst property, and west and south of the UniFirst property, previously approved by EPA and the Massachusetts Department of Environmental Protection (DEP) as appropriate locations to monitor the effects of pumping from well UC-22 (the recovery system).

Harvard Project Services (HPS) has been responsible for the system since January 1, 2000 and is the principal author of this document. All data and field documentation collected during the operation of the system, such as field sheets, sample logs, data files, and laboratory reports, are maintained in the offices of HPS and previous contractors responsible for operation of the system (AO, Inc., The Johnson Company, ENSR Consulting & Engineering, Inc. and Handex of New England, Inc.).

1.1 Background and Objectives

Treatment System

The purpose of the groundwater extraction and treatment systems installed and operated on the UniFirst and Grace properties, to the extent feasible, is to address the remedial objectives for contaminated groundwater specified in the Consent Decree:

- Prevent the further introduction of contaminated groundwater from the source areas to the Central Area;
- Limit the further migration of contaminated groundwater off-site from the source areas;
- Restore the bedrock and overburden aquifers in the vicinity of the source areas to drinking water quality; and,
- Prevent public contact with contaminated groundwater above the Cleanup Levels.

Based on these objectives, UniFirst and Grace started groundwater pumping and remediation systems on the UniFirst and Grace properties on September 30, 1992. The UniFirst/Grace groundwater pumping and remediation program consists of two extraction and treatment systems. The recovery system on the Grace property presently consists of 16 wells that pump groundwater from the unconsolidated deposits and upper bedrock. Grace has prepared a separate annual report on

the recovery system on the Grace property. That document is entitled *W.R. Grace Remedial Action Wells G&H Site, Woburn, Massachusetts, Annual Report for October 1, 2006 to September 30, 2007* prepared by GeoTrans, Inc., and submitted to the EPA separately.

Capture System

The recovery system on the UniFirst property consists of a single well, UC22, which pumped groundwater at an average rate of 35.5 gallons per minute (gpm) during Year 15. This well is located at the northeast corner of the UniFirst property. Its total depth is 190 feet below ground surface with an open interval of 175 feet in bedrock. The pump is set at approximately 175 feet below the ground surface.

When UC22 pumping began on September 30, 1992, 91 well points at 35 locations were monitored for water levels quarterly, and seven wells contained data loggers. By February 1995, a total of 116 well points were monitored quarterly for water levels, and data loggers were installed in four additional wells, as part of the Long Term Monitoring Program (LTM Program) to measure results of the recovery system. These data were presented on a table, 91 hydrographs, five potentiometric cross sections, and two potentiometric surface maps in quarterly and annual reports for Years 1, 2, and 3.

In July 1996, UniFirst proposed changes in the LTM Program based on the results of previously documented monitoring events and recommendations made in the Year 3 Annual Report. These modifications included a shift to annual monitoring of the well network and changes to the number and locations of wells sampled and monitored for water-level elevations. EPA and DEP approved these modifications in August 1996. Table 1 presents the current monitoring wells sampled annually each spring, and Table 2 provides a list of wells measured in the spring water-level monitoring program. Table 3 summarizes the depth and screened elevation of the monitoring wells discussed in this report.

Year 15 Modified Activities

The LTM Program for the period October 2006 through September 2007 was implemented as described in the approved plans.

In March 2007, the carbon tanks were replaced with four brand new fiberglass tanks connected by flexible hose.

Report Contents

This report contains the extraction and treatment system and monitoring well data collected during the fifteenth year of operation of the UniFirst groundwater extraction and treatment system. Section 1.0 provides a general background and objectives with a yearly update of modified activities.

Section 2 of this report evaluates the area of groundwater capture in the bedrock and unconsolidated

deposits. Potentiometric maps of the April 2007 water-level measurements are presented in Appendix A. Water-level measurements recorded in 2007 are presented in tables and hydrographs in Appendices B and C.

Five potentiometric cross sections prepared from the April 2007 groundwater level measurements are presented in Appendix A. In addition, a more detailed potentiometric cross section is presented in Appendix A at two different vertical exaggerations. This additional cross section incorporates data from a greater number of monitoring wells for the purpose of illustrating groundwater capture in the unconsolidated deposits at the western boundary of the UniFirst property.

Section 3 describes water quality observations in the VOC data. The 2007 data are presented in Appendix D and a concentration distribution map in Appendix A, which includes a concentration history for wells in the monitoring program.

Section 4 evaluates the groundwater extraction and treatment system performance. This section discusses the water quality for the influent and discharge, groundwater pumping rate, recovery well water level elevations, contaminant mass removal, and the overall performance of the components.

Section 5 summarizes the operation and maintenance of the groundwater extraction and treatment system, including a discussion of system downtime, and maintenance and repairs.

Section 6 includes recommendations regarding the continued monitoring of the system and provides brief conclusions.

Project Team Organization

Harvard Project Services LLC (HPS) has been UniFirst's contractor for operation of the treatment system since January 1, 2000. HPS supervises the operations and prepares the monthly and annual reports. The Johnson Company continues to provide technical assistance in the capacity of Design Engineer and Hydrogeology Consultant by preparing Sections 2 and 3 and Appendix A of this report. Buckley Brothers Plumbing provides annual maintenance, emergency response and trouble-shooting services.

Katahdin Analytical Services, Westbrook, Maine continued to provide laboratory services during year fifteen. As has been done since 1999, GeoTrans, which has worked for Grace and UniFirst in many capacities for many years on the Wells G&H Site, undertook the water-level measurements and ground water sampling that are part of the Long-Term Monitoring Program. Quality assurance for the project, as set forth in the Quality Assurance and Quality Control Plan, continues to be monitored by ECCI of Windham, Maine.

Project Control Companies, Inc., Westford, Massachusetts, is UniFirst's Project Coordinator for Consent Decree-related matters.

2 GROUNDWATER CAPTURE EVALUATION

2.1 Bedrock

Evaluation of the potentiometric maps and cross sections presented in Appendix A shows an extensive vertical and horizontal area of groundwater capture in the bedrock. With the exception of brief periods of treatment and pumping system down time, this capture has been maintained beyond the UniFirst and Grace property boundaries throughout the fifteen years of operation.

The potentiometric maps and cross sections in Appendix A present contours of groundwater elevations that are used to evaluate the extent of groundwater capture. As with previous years' evaluations, these maps and cross sections show that groundwater capture in bedrock extends well into the Central Area of the Site and, therefore, surpasses the Consent Decree's objective of preventing migration of contaminated groundwater at or near the boundaries of the UniFirst property. The bedrock capture area throughout the thirteenth year of monitoring extends beyond 1,000 feet south of UC22 as shown by water-level elevations measured in UG1 and in potentiometric cross-section D-D' (Figure A-1B), and more than 400 feet vertically, as shown by water-level elevations measured in UC23 and well nest UG1.

The water-level data table indicates that in most monitoring wells, the highest and lowest recorded water-level elevations for the period September 1992 through May 2006 occur in approximately April/May and October/November, respectively. One bedrock monitoring well (pumping well UC22) contained a transducer connected to a data logger. The hydrograph for this well, presented in Appendix C, shows that in the fifteenth year the highest groundwater elevations occurred in late December 2006 and the lowest in August 2007.

2.2 Unconsolidated Deposits

A total of seven potentiometric cross sections (Figures A-1A through A-1G), together with Figure A-2 (Potentiometric Surface of Shallow Bedrock) and Figure 3 (Estimated Maximum Extent of Capture in Bedrock), illustrate a capture zone that extends from UC22 beyond the UniFirst property boundaries, achieving the groundwater objectives for source area properties as provided in the Consent Decree.

Sixty-two monitoring wells in unconsolidated deposits are measured annually as part of the approved LTM Program. Two monitoring wells in the unconsolidated deposits contain data loggers and transducers for water level monitoring. These two wells, UC6 and UC6S, are located on the downgradient end of the UniFirst property. An unexplained data loss occurred during the late spring months. The hydrographs for these two wells are provided in Appendix C. The hydrographs show an increasing curve during the mid-winter and late spring and decreasing curve during the late fall that is relatively consistent with the seasonal trend.

To visualize the area in which groundwater is captured, it is important to understand that this zone

extends in three dimensions, horizontally and vertically, as one interconnected system in bedrock and unconsolidated deposits. It is difficult to illustrate a 3-dimensional system in a series of 2-dimensional illustrations, but taken together, the figures in Appendix A illustrate capture by UC22 of groundwater in the unconsolidated deposits and bedrock beyond the UniFirst property line. For example, Figure A-1B shows that the capture zone in bedrock extends well beyond the boundaries of the UniFirst property. At nearly all of the wells measured, the hydraulic head in the bedrock is substantially lower than the hydraulic head in the unconsolidated deposits. As shown on Figure A-1G, for example, the hydraulic head in unconsolidated deposits near the western boundary of the UniFirst property at UC6 is 57.45 feet and the hydraulic head immediately below that area in bedrock well UC15S is 54.70 feet. Groundwater flows from the area of higher hydraulic head in the unconsolidated deposits, to the area of lower hydraulic head in the bedrock, and therefore is captured and drawn into the recovery system. Figures A-1F and A-1G present an east to west cross section beneath the UniFirst property at two vertical exaggerations. As the degree of vertical exaggeration is reduced from 5:1 in Figure A-1F to 2.5:1 in Figure A-1G, the equipotential lines become more horizontal and it becomes clear that contaminated groundwater initially flowing to the west on the UniFirst property in the unconsolidated deposits is drawn downward and ultimately captured as it flows into the bedrock zone. Just the same way, any groundwater flowing south or west from the Grace property that is not captured by the shallow recovery system currently operating at the Grace site is captured in bedrock and ultimately recovered in UC22.

In addition to the data and figures presented in each of the annual reports, UniFirst submitted a separate report in December 1996 specifically to illustrate the extent of capture in unconsolidated deposits entitled, *Data Report, Groundwater Capture in the Unconsolidated Deposits and Shallow Bedrock for the UniFirst Property on the Wells G&H Site.* This 1996 Data Report presents water-level and concentration data that show the extensive hydraulic interconnection between the unconsolidated deposits and the bedrock. For example, at the end of the May 1991 30-day pumping test of UC22, water-level changes as large as 2 feet were measured in monitoring well GO1S, which is approximately 750 feet south of UC22. The 1996 Data Report also presents data logger hydrographs showing unconsolidated deposit well responses to the 30-day pumping test in all directions from the UC22 pumping well (*e.g.*, a water-level change of 4.2 feet at unconsolidated deposits well location IUS1 approximately 200 feet north of UC22, and 0.8 feet of drawdown at well S70S on the UniFirst western property boundary approximately 600 west of UC22). The 1996 Data Report shows that VOC concentrations in unconsolidated deposits on the western boundary of the UniFirst property have declined since 1991 as a result of pumping and recovery of groundwater at UC22. For example, the concentration of tetrachloroethene (PCE) at unconsolidated deposit well UC6 on the UniFirst western property boundary was reduced from a pre-pumping value of 2,200 micrograms per liter (µg/L) to 270 µg/L at the time of the 1996 Data Report, and is currently 26 µg/L.

Since the initiation of the extraction and treatment system in September 1992, 22 monitoring wells have been installed in the unconsolidated deposits on the UniFirst property, and 13 monitoring wells have been installed in the unconsolidated deposits downgradient of the UniFirst property. Hydraulic and concentration data developed from these additional monitoring wells support the assessment of contaminated groundwater capture on the UniFirst property with either a continued absence or

decline of VOC concentrations in unconsolidated deposits on the property, and water levels that support a capture area beyond the property boundary.

3 ANALYTICAL DATA EVALUATION

As discussed above in Section 2, the LTM Program was updated substantially after UC22 began long-term pumping by adding 35 monitoring wells on and downgradient of the UniFirst property. These locations were selected and approved by the EPA to monitor both the bounds of the capture area and the effects of UC22 on VOC concentrations. Based on several meetings and discussions since long-term groundwater pumping began at UC22 on September 30, 1992, UniFirst and the EPA have agreed to several increases and decreases in the number of locations for monitoring compliance with the source area objectives for groundwater specified in the Decree to arrive at the current LTM Program shown in Tables 1 and 2.

Groundwater sample collection for VOC analysis was completed in May 2007 at all of the twenty-five monitoring well locations shown on Table 1. Appendix D presents analytical data from these monitoring wells and Figure A-4 in Appendix A presents pre-pumping and post-pumping VOC analytical data for the LTM Program monitoring network.

The summary tables in Appendix A, Figure A-4 present VOC data sets representative of pre-pumping conditions and the last six years of post-pumping VOC results, where data are available. The VOC summary figure includes concentrations of PCE, trichloroethene (TCE), total or cis-1,2-dichloroethene (DCE), vinyl chloride (VC), and 1,1,1-trichloroethane (TCA). Figure A-4 shows those locations and/or events where cis-1,2-dichloroethene was analyzed instead of total DCE. The mapped VOC data reflect representative pre-pumping VOC results as well as the VOC results from May 2002 and 2003, April 2004 and 2005, and May 2006 and 2007, where available.

Overall, the analytical data from Year 15 are similar to previous years. Some monitoring wells continue to have concentrations below the ROD cleanup goals. VOC were not detected or were below ROD levels in the unconsolidated deposit wells UC6S, UC10S, UC10M, and UC10D on the UniFirst property. At other wells, the changes in analytical results that occurred during the Year 15 monitoring of bedrock and unconsolidated deposits were insignificant relative to past monitoring events. In the bedrock, examples of fluctuations within the historical range continue at the UC10 and UC7 locations on the UniFirst property which showed both declines and increases in concentrations. Shallow bedrock well S70D on the UniFirst property continues to have PCE concentrations below the ROD cleanup goal, while shallow bedrock well S71D has a PCE concentration that has decreased from 180 µg/L to 45 µg/L. Well construction constraints prevent direct measurement of DNAPL at most of the wells in the monitoring network, but the groundwater concentrations at UC7 continue to suggest the presence of PCE DNAPL.

In summary, the VOC concentration data collected from bedrock and unconsolidated deposit wells during the Year 15 monitoring generally remained within ranges consistent with recent monitoring events. At all wells currently sampled, conditions appear stable because no concentration change occurred or the variability has remained approximately the same for at least the last six monitoring

events. Concentrations of PCE are below the cleanup goal of 5 µg/L at 6 of the 25 wells sampled in Year 15.

4 GROUNDWATER EXTRACTION & TREATMENT SYSTEM PERFORMANCE

The groundwater extraction and treatment system operated for over 97 percent of the time during the fifteenth year of operation. Approximately 18.63 million gallons of groundwater were recovered by UC22. Throughout Year 15 the treatment system performed well, with 7 unscheduled interruptions in the system operation. PCE and TCE were not present in any discharge samples above the discharge limits of 5 µg/L. Approximately 39.5 pounds of PCE and 2.2 pounds of TCE are estimated to have been removed during the year of operation.

The annual system inspection and planned maintenance were performed by HPS and Buckley Brothers Plumbing on September 11, 2007. Forms completed during the annual inspection and planned maintenance are included in Appendix E.

During the year, twelve monthly Operation and Maintenance summary reports were prepared by HPS and submitted to EPA.

4.1 Influent Water Quality

During the fifteenth year of operation, six samples of groundwater pumped from the extraction well were collected from S1, the sample port at the inlet to the treatment system, and analyzed for VOC using EPA Method 8260. The analytical results for these samples are summarized in Appendix F.

Influent concentrations of PCE and TCE, since start-up, are plotted in Figures 1 and 2, respectively. The concentration of PCE ranged from 130 µg/L on September 4, 2007 to 320 µg/L on January 2 and May 1, 2007. The arithmetic mean of PCE concentrations that were reported over the past year was 250 µg/L.

Influent concentrations of TCE during Year 15 showed a pattern similar to that of PCE, ranging from 19 µg/L to 9 µg/L. The arithmetic mean of TCE concentrations over the past year was 14.5 µg/L.

A summary of maximum and minimum concentrations of PCE, TCE, and several other relevant VOC are shown in Table 4. Quantification of 1,1-DCE, 1,2-DCE, and 1,1,1-TCA was not possible where these compounds were reported at or below analytical detection limits.

4.2 Discharge Water Quality

Samples of the treated groundwater were collected from the discharge sampling port S6 monthly. In addition to the twelve S6 discharge samples collected, duplicate samples were collected on

December 6, 2006 and June 5, 2007. The duplicates were given the sample identification S7. The discharge samples were analyzed for VOC using EPA Method 524.2 and lead using EPA Method 239.2-M. The results of the VOC and lead analyses performed for S6 and S7 samples are listed in Appendix F. A summary of the discharge sampling data for Year 15, along with the discharge limits, is given in Table 5.

PCE and TCE have not been present in the discharge samples above the laboratory reporting limits of 0.5 µg/L. Concentrations for 1,1,1 TCA ranged from below the method detection limit to a maximum of 2.1 µg/L. A discharge limit for 1,1,1 TCA has not been established; however the clean up levels referenced in the Record of Decision indicate a limit of 200 µg/L. Concentrations of lead ranged from not detected to 5.7 mg/L.

A discharge sample collected on May 1, 2007 was analyzed for TCL/TAL parameters. The laboratory reports for these analyses are included in Appendix G. According to the report, total barium, total calcium, total magnesium, total potassium, and total sodium were detected in the sample above the practical limit of quantification (see Table 6). All remaining compounds were reported below their detection limits.

4.3 Groundwater Pumping Rate & Recovery Well Water Level Elevations

An analysis of the data collected during the May 1991 pumping test yielded a target water-level elevation in the extraction well (UC22) of 15 feet (NGVD) for the long term remedial action. As a result of the pumping test, a pumping rate of approximately 50 gallons per minute (gpm) was targeted to maintain the desired water-level elevation. Long-term operational data indicate that an appropriate water-level elevation and groundwater capture area is achieved at pumping rates less than 50 gpm and water-level elevations above 15 feet. Flow rate, carbon pressure, and water level elevation in the pumping well for Year 15 are shown in Figure 3.

The flow rate for the operational year averaged 35.5 gpm. This flow rate maintained the pumping water-level in UC22 at an average elevation of 21.3 ft above mean sea level, and as discussed above, was sufficient to maintain a zone of capture beyond the boundaries of the UniFirst property.

During the operational year, approximately 18.63 million gallons of groundwater were extracted from UC22.

4.4 Contaminant Mass Removal

The total mass of contaminant removed has been calculated using the average of the influent concentrations of the contaminants and monthly flows. The data used in the mass removal calculations are presented in Appendix H. Approximately 39.5 pounds of PCE and 2.2 pounds of TCE were removed during the operational year (refer to Table 7 for monthly mass removals for each of the years of operation). As indicated in Appendix H, 0.25 pounds of 1,1,1-TCA, 0.26 pounds of 1,2-DCE, and 0.16 pounds of 1,1-DCE also were removed by the extraction and treatment system. Approximately 1,997 pounds of PCE and 95.6 pounds of TCE have been removed during the fifteen

years of operation. The cumulative recovery of PCE and TCE over time is shown graphically in Figure 4 and the annual recovery is shown in Figure 5.

4.5 Carbon Treatment Performance

As approved by EPA in 2003, the System was modified to provide treatment using only granular activated carbon. In March 2007, the carbon tanks were replaced with polyethylene lined fiberglass vessels. Each tank can hold 1,000 pounds of activated carbon. Connections between tanks are made using flexible hoses. The treatment process was not changed; flow still passes through three carbon tanks before discharge.

Carbon treatment performance is tracked by collecting and analyzing samples between the first two carbon vessels from sample port S5C1, and between the second pair of tanks from sample port S5C2. Effluent from the third carbon vessel, which is the final carbon before discharge, is monitored at sample port S6. The water quality data for the carbon sample ports, S5C1 and S5C2, are listed in Appendix F.

5 SYSTEM OPERATION AND MAINTENANCE

5.1 Operation Summary

During the fifteenth year of operation, the remedial system had limited downtime. The groundwater extraction and treatment system was "on-line" over 97 percent of the total elapsed time during the past year. The system was shut down on six occasions in Year 15 due to power outages, frequently related to bad weather. The dates, duration, and cause of system downtime are summarized in Table 8.

Carbon Tanks

Since October 10, 2003, the carbon vessels have provided primary treatment and polishing of the system discharge.

The year began with the process order set to 2-3-4. On March 19, 2007, the System was shut down to implement the tank changes. The carbon from the final tank was installed in new carbon tank #1 and the carbon from the secondary and primary carbon tanks was shipped for regeneration. After the carbon was installed, the carbon vessel was filled with city water and allowed to soak for a number of days before being backwashed to remove fines. The System was restarted on March 23, 2007 with the new carbon tanks set to 1-2-3. On August 25, 2007, the process order was changed to 2-3-4.

Spent carbon was stored in drums until removed from the site and sent under hazardous manifest to EnviroTrol, Sewickly, Pennsylvania for regeneration. Drums of carbon were sent for regeneration on March 27, 2007 (21 drums).

5.2 Maintenance Summary

The treatment system maintenance activities performed during the year fall into two general categories, routine and non-routine, both of which are briefly discussed below.

Routine Maintenance and System Monitoring

Fifty-two routine system inspections were conducted during the past year on a weekly basis. During each inspection an operation log was completed by HPS. In addition to the on-site inspections, HPS reviewed operational parameters and downloaded the data via a modem link to the data logger on an average frequency of once per week.

Routine maintenance tasks are generally scheduled to coincide with the system inspections. Routine maintenance consists of injecting the previously settled backwash water back into the treatment system and backwashing the multi-media filter and carbon units, if needed. The multimedia filter was backwashed on March 15, 2007. The carbon units were backwashed only after the installation of new carbon or before a change in the process order.

Non-Routine Maintenance

During a storm on July 11, 2007 the System shut down. Investigation revealed that the cause likely was a lightning strike on well UC22 or nearby. The well pump in UC22 and all of the well pump wiring from the pump to the control box inside the building was replaced by Beals & Sons, Inc. The system was down for approximately eight days while a new pump was obtained and installed.

5.3 Quarterly Sensor Check

There are three sensors incorporated into the treatment system, one flow sensor and two pressure transducers. The accuracy of these sensors was evaluated on December 12, 2006, March 19, 2007, June 5, 2007 and September 11, 2007. When the checks indicated that the acceptable margins of error had been exceeded, adjustments were made to correlate the sensor outputs with the manual readings. Quarterly sensor calibration checklists were completed to provide documentation of the sensor checks.

5.4 Annual Inspection & Maintenance

On September 11, 2076, HPS performed the annual inspection of the treatment system. The completed checklist is included in Appendix E. Corrosion and leaks were identified on the discharge piping from the multi-media filter and arrangements were made with Buckley Brothers to replace the connection to the tank and piping up to valve F2. This work was completed on October 17, 2007. All other components passed inspection.

On September 11, 2007, Buckley Brothers Plumbing replaced components in the diaphragm check valve and the pressure-reducing valve. The completed maintenance checklist is included in Appendix E.

5.5 System Modifications

In March 2007, the carbon tanks were replaced with polyethylene lined fiberglass vessels. Each tank can hold 1,000 pounds of activated carbon. Connections between tanks are made using flexible hoses. The treatment process was not changed; flow still passes through three carbon tanks before discharge.

6 CONCLUSIONS

6.1 Monitoring System

The water-level elevation data collected during the annual monitoring showed similar elevations and area of groundwater capture relative to the elevations measured historically.

The VOC concentrations detected during the annual sampling event showed equilibrated conditions at a majority of the monitoring well locations (approximately 95 percent). Locations where minor increases and decreases in VOC concentrations were detected, relative to previous monitoring results, will be monitored to determine if any continuing and significant trend emerges.

The water-level elevation data and VOC concentrations continue to demonstrate that the groundwater capture area surpasses the Consent Decree's objective of preventing migration of contaminated groundwater at or near the boundaries of the UniFirst property. UniFirst will consider reductions in the scope of the monitoring system based on the continued equilibrium conditions observed in the data.

6.2 Treatment System

The system provided complete treatment of over 18 million gallons of groundwater during the fifteenth year of operation, and a cumulative total of 311 million gallons during fifteen years of operation.

Tables & Figures

TABLE 1
Monitoring Wells Sampled for VOC

GO1DB	UC6S	UC10-3
S70D	UC7-1	UC10-4
S71S	UC7-2	UC10-5
S71D	UC7-3	UC10-6
S81S	UC7-4	UC10S
S81M	UC7-5	UC10M
S81D	UC10-1	UC10D
UC6	UC10-2	UC11-2
		UG1-4

TABLE 2
Monitoring Wells in the Water Level Monitoring Network

DP1S	S65M	UC10S	UC26S
DP1D	S65DR	UC10M	UC26D
DP2S	S66D	UC10D	UC29S
DP2M	S67S	UC10-1	UC29D
DP2D	S67M	UC10-2	UC30
DP3	S67D	UC10-3	UC31S
DP36	S69D	UC10-4	UC31M
DP37S	S70S	UC10-5	UC31D
DP37D	S70M	UC10-6	UG1-1
K42S	S70D	UC11-2	UG1-2
K42M	S71S	UC15S	UG1-3
K42D	S71D	UC15D	UG1-4
GO1S	S81S	UC16	UG1-5
GO1D	S81M	UC17	UG1-6
GO1DB	S81D	UC18	UG1-7
IUS1	S82	UC19S	UC32
IUS2A	S97S	UC19D	UC33
IUS2B	S97M	UC19	UC34
IUS2C	S97D	UC20	UC35
IUS3A	UC4	UC16	UC36
IUS3B	UC5	UC22*	UG1-4
IUS3C	UC6S*	UC23-1	
S7R	UC6*	UC23-2	
S63S	UC7A-1	UC23-3	
S63D	UC7A-2	UC23-4	
S64S	UC7A-3	UC23-5	
S64M	UC7A-4	UC24S	
S64D	UC7A-5	UC24D	
S65S	UC8	UC25	

* Wells monitored both manually and with data loggers set to record every 60 minutes.

TABLE 3

Location of Monitoring Well Screened Intervals

WELL DATA				WELL DATA				WELL DATA			
WELL NO.	GEO. UNIT	TOS EL FT	BOS EL FT	WELL NO.	GEO. UNIT	TOS EL FT	BOS EL FT	WELL NO.	GEO. UNIT	TOS EL FT	BOS EL FT
DP1S	DR	45.50	44.40	S70S	SR	54.00	39.00	UC15S	DPB	-10.00	-20.00
DP1D	DR	45.40	34.40	S70M	DR	27.00	7.00	UC15D	DPB	-202.00	-212.00
				S70D	SHB	2.00	-13.00				
DP2S	DR	44.47	43.47					UC16	SHB	62.00	44.00
DP2M	DR	30.12	29.12	S71S	DR	60.00	55.00				
DP2D	DR	14.80	13.80	S71D	SHB	49.00	29.00	UC17	SHB	62.00	44.00
DP3	DR	45.22	44.22	S81S	DR	44.00	34.00	UC18	SHB	60.00	40.00
				S81M	DR	20.00	5.00				
DP25	DR	48.91	47.91	S81D	SHB	-13.00	-28.00	UC19S	DR	64.40	54.40
								UC19M	DR	43.30	38.30
DP36	DR	51.02	50.02	S82	DR	32.00	22.00	UC19	SHB	31.00	12.00
DP37S	DR	45.82	44.82	S97S	DR	40.00	35.00	UC20	SHB	65.00	46.00
DP37D	DR	42.75	41.75	S97M	DR	26.00	24.00				
				S97D	SHB	12.00	5.00	UC22	SHB	70.00	-105.00
DP38	DR	70.74	69.74								
				UC4	SHB	64.00	54.00	UC23-5	DPB	-141.00	-152.00
GO1S	DR	65.00	55.00					UC23-4	DPB	-164.00	-174.00
GO1D	SHB	49.00	34.00	UC5	DR/SHB	64.00	54.00	UC23-3	DPB	-197.00	-213.00
GO1DB	DPB	18.00	3.00					UC23-2	DPB	-283.00	-293.00
				UC6S	DR	59.50	49.50	UC23-1	DPB	-303.00	-308.00
IUS1	SHB	76.00	61.00	UC6	DR	35.00	25.00				
								UC24S	DR	60.90	50.90
IUS2C	DR	51.00	41.00	UC7A-5	DR	71.00	53.00	UC24D	DR	22.80	17.80
IUS2B	DR	21.00	6.00	UC7A-4	SHB	50.00	9.00				
IUS2A	SHB	-10.00	-28.00	UC7A-3	DPB	6.00	-18.00	UC25	DR	66.40	56.40
				UC7A-2	DPB	-21.00	-46.00				
IUS3C	DR	62.00	42.00	UC7A-1	DPB	-60.00	-77.00	UC26S	DR	60.19	53.3
IUS3B	DR	37.00	22.00					UC26D	DR	39.31	34.31
IUS3A	DR/SHB	20.00	4.00	UC8	DR/SHB	69.00	54.00				
								UC29S	DR	60.82	54.02
K42S	DR	35.90	34.90	UC9-6	SHB	67.00	47.00	UC29D	DR	50.91	45.91
K42M	DR	11.30	10.30	UC9-4	DPB	-18.00	-28.00				
K42D	DR	-9.2	-10.2	UC9-2	DPB	-86.00	-97.00	UC30	DR	64.78	58.98
S6	DR/SHB	54.00	-36.00	UC10S	DR	59.60	49.60	UC31S	DR	58.36	52.26
				UC10M	DR	38.80	33.80	UC31M	DR	40.41	35.41
S7	DR/SHB	90.80	66.80	UC10D	DR	20.10	15.10	UC31D	DR	22.52	17.52
S63S	DR	58.00	48.00	UC10-6	DPB	-8.00	-23.00	UC32	DR	67.47	66.82
S63D	SHB	44.00	34.00	UC10-5	DPB	-55.00	-59.00				
				UC10-4	DPB	-78.00	-88.00	UC33	DR	62.89	62.24
S64S	DR	48.00	43.00	UC10-3	DPB	-102.00	-112.00				
S64M	DR	31.00	26.00	UC10-2	DPB	-145.00	-157.00	UC34	DR	68.91	68.26
S64D	SHB	18.00	3.00	UC10-1	DPB	-161.00	-173.00				
								UC35	DR	66.59	65.94
S65S	DR	72.60	52.60	UC11-6	DPB	29.00	19.00				
S65M	DR	49.30	39.30	UC11-4	DPB	-95.00	-103.00	UC36	DR	68.11	67.46
S65DR	SHB	30.60	20.60	UC11-2	DPB	-183.00	-203.00				
				UC11-1	DPB	-250.00	-265.00	UG1-7	DPB	-38.00	-48.00
S66D	SHB	50.00	35.00					UG1-6	DPB	-75.00	-86.00
				UC12-6	DPB	24.00	16.00	UG1-5	DPB	-91.00	-99.00
S67S	DR	59.00	49.00	UC12-5	DPB	-3.00	-20.00	UG1-4	DPB	-143.00	-154.00
S67M	DR	50.00	40.00	UC12-4	DPB	-72.00	-87.00	UG1-3	DPB	-301.00	-317.00
S67D	SHB	23.00	8.00	UC12-3	DPB	-126.82	-127.32	UG1-2	DPB	-397.00	-408.00
				UC12-2	DPB	-203.06	-203.56	UG1-1	DPB	-413.00	-416.00
S69	SHB	35.00	20.00	UC12-1	DPB	-238.00	-268.00				

Key: DR = glacial drift SHB = shallow bedrock DPB = deep bedrock TOS = top of screen BOS = bottom of screen

Note: All well screen depths are elevations in feet above national geodetic vertical datum.

TABLE 4
Influent VOC Concentration Summary (S1), Year 15

Parameter	Minimum	Maximum
Tetrachloroethene (PCE)	130 µg/L	320 µg/L
Trichloroethene (TCE)	9 µg/L	19 µg/L
1,1 Dichloroethene (1,1 DCE)	<1 µg/L	<1 µg/L
1,2 Dichloroethene (1,2 DCE)	1J µg/L	3 µg/L
1,1,1-Trichloroethane (1,1,1 TCA)	1J µg/L	2 µg/L

Values in parentheses are the detection limits.
J is an estimated concentration.

TABLE 5
Discharge Concentration Summary (S6), Year 15

Parameter	Discharge Limit[1] (µg/L)	Minimum (µg/L)	Maximum (µg/L)
1,1 Dichloroethene (1,1-DCE)	7	<0.5 (0.5)	<0.5 (0.5)
1,2 Dichloroethene (1,2-DCE)	70	<0.5 (0.5)	2.4 (0.5)
1,1,1-Trichloroethane (1,1,1-TCA)	No Limit	<0.5 (0.5)	2.1 (0.5)
Tetrachloroethene (PCE)	5	<0.5 (0.5)	<0.5 (0.5)
Carbon Tetrachloride	5	<0.5 (0.5)	<0.5 (0.5)
Benzene	5	<0.5 (0.5)	<0.5 (0.5)
Trichloroethene (TCE)	5	<0.5 (0.5)	<0.5 (0.5)
Lead	10.2	<0.91	5.7

Detection limits for VOC are presented in parentheses.

[1] The discharge limits are for average monthly concentrations.

TABLE 6
TCL/TAL Analytical Results for S6, Year 15

Parameter	Result (µg/L)
Barium	37.4
Calcium	177,000
Magnesium	26,800
Potassium	3,720
Sodium	258,000

TABLE 7
Chemical Mass Removal Rates

PCE (lbs.)

Month	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Oct	15.4	28.8	15.0	14.3	9.1	10.4	8.4	7.7	6.8	7.3	6.2	5.6	5.7	3.4	2.8
Nov	23.4	28.1	20.2	15.6	17.4	9.4	9.6	8.6	6.2	6.1	6.0	5.1	4.5	3.6	2.8
Dec	25.3	26.1	11.6	17.3	12.3	11.9	8.1	9.5	8.5	5.5	6.7	6.2	4.8	3.9	3.3
Jan	31.9	34.7	16.6	17.8	11.5	10.0	6.7	10.1	9.8	5.4	7.0	7.2	5.6	4.1	3.7
Feb	24.3	12.0	23.4	13.5	11.7	10.0	12.7	9.3	10.6	4.3	6.5	6.0	4.4	3.4	3.0
Mar	34.0	30.0	37.8	10.5	11.1	8.8	20.4	10.4	13.2	6.6	7.1	4.8	3.9	3.4	2.7
Apr	24.7	30.8	24.8	14.7	12.9	14.0	16.3	9.6	12.5	6.5	6.1	6.5	4.2	3.5	4.3
May	33.9	27.8	16.9	18.9	11.6	12.2	11.8	9.4	11.5	5.6	5.3	7.9	4.5	3.4	5.1
Jun	37.3	22.4	15.6	14.7	10.5	9.9	7.1	8.7	9.5	5.5	4.6	6.1	4.1	3.1	4.3
Jul	34.4	23.1	15.7	11.4	12.4	12.1	9.5	8.3	8.2	8.4	4.8	2.4	3.9	2.9	2.8
Aug	25.7	21.2	14.4	11.4	10.5	9.2	10.5	7.3	8.1	7.2	6.1	5.1	3.6	2.6	2.8
Sep	21.5	19.3	12.5	11.0	11.5	7.0	10.5	6.1	7.8	5.9	7.2	6.0	3.2	2.6	1.8
Total	331.80	304.30	224.50	171.10	142.50	124.69	131.66	104.88	112.69	74.42	73.50	69.02	52.42	40.01	39.46

TCE(lbs.)

Month	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Oct	1.00	1.50	1.10	0.80	0.40	0.55	0.41	0.45	0.39	0.39	0.38	0.31	0.30	0.23	0.18
Nov	1.90	1.40	1.20	0.80	0.50	0.50	0.41	0.50	0.36	0.37	0.36	0.29	0.27	0.22	0.17
Dec	1.90	1.40	1.10	0.90	0.90	0.49	0.42	0.51	0.42	0.32	0.31	0.28	0.24	0.20	0.17
Jan	2.10	1.40	0.70	1.00	0.50	0.41	0.43	0.49	0.43	0.32	0.22	0.27	0.24	0.17	0.16
Feb	1.60	0.40	0.70	0.80	0.50	0.41	0.61	0.40	0.54	0.25	0.24	0.27	0.19	0.15	0.15
Mar	1.80	0.80	0.80	0.60	0.50	0.23	0.88	0.38	0.74	0.36	0.29	0.27	0.16	0.17	0.17
Apr	1.60	0.90	0.80	0.60	0.50	0.48	0.70	0.29	0.52	0.30	0.28	0.24	0.17	0.18	0.18
May	1.50	1.20	0.90	0.60	0.40	0.51	0.50	0.22	0.28	0.21	0.27	0.19	0.19	0.19	0.14
Jun	1.60	0.90	0.80	0.60	0.40	0.43	0.40	0.31	0.30	0.22	0.23	0.24	0.22	0.13	0.21
Jul	1.70	1.00	0.80	0.80	0.60	0.37	0.44	0.41	0.35	0.36	0.22	0.15	0.26	0.09	0.22
Aug	1.40	1.00	0.80	0.70	0.50	0.44	0.47	0.34	0.37	0.38	0.32	0.28	0.25	0.12	0.26
Sep	1.20	1.00	0.80	0.70	0.60	0.40	0.46	0.27	0.38	0.38	0.40	0.29	0.23	0.18	0.21
Total	19.30	12.90	10.50	8.90	6.30	5.22	6.13	4.56	5.05	3.86	3.52	3.10	2.70	2.02	2.23

Total PCE & TCE (lbs)

Month	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Oct	16.4	30.3	16.1	15.1	9.5	10.9	8.84	8.15	7.15	7.70	6.56	5.87	5.96	3.61	3.02
Nov	25.3	29.5	21.4	16.4	17.9	9.9	10.04	9.06	6.56	6.50	6.32	5.43	4.79	3.81	2.97
Dec	27.2	27.5	12.7	18.2	13.2	12.4	8.52	10.01	8.93	5.82	6.99	6.52	5.06	4.09	3.48
Jan	34.0	36.1	17.3	18.8	12.0	10.4	7.17	10.61	10.26	5.76	7.25	7.49	5.86	4.23	3.89
Feb	25.9	12.4	24.1	14.3	12.2	10.4	13.29	9.65	11.12	4.50	6.69	6.31	4.61	3.58	3.13
Mar	35.8	30.8	38.6	11.1	11.6	9.0	21.30	10.74	13.98	6.99	7.40	5.04	4.06	3.61	2.86
Apr	26.3	31.7	25.6	15.3	13.4	14.4	17.02	9.91	12.98	6.84	6.37	6.74	4.35	3.64	4.50
May	35.4	29.0	17.8	19.5	12.0	12.7	12.30	9.61	11.76	5.80	5.58	8.08	4.66	3.62	5.24
Jun	38.9	23.3	16.4	15.3	10.9	10.4	7.46	8.98	9.78	5.69	4.84	6.38	4.37	3.28	4.49
Jul	36.1	24.1	16.5	12.2	13.0	12.5	9.93	8.72	8.57	8.80	5.04	2.56	4.17	2.99	3.01
Aug	27.1	22.2	15.2	12.1	11.0	9.6	10.93	7.61	8.49	7.57	6.43	5.42	3.84	2.75	3.05
Sep	22.7	20.3	13.3	11.7	12.1	7.4	10.99	6.40	8.16	6.29	7.56	6.25	3.38	2.80	2.03
Total	351.1	317.2	235.0	180.0	148.8	129.9	137.79	109.44	117.74	78.28	77.02	72.11	55.13	42.03	41.69

TABLE 8
Downtime Summary, Year 15

Date	Unscheduled (Hours)	Reason/Cause
11/09/2006	2	Power outage
11/27/2006	1	Power outage
06/13/2007	2	Power outage
06/30/2007	1	Power outage
07/11/2007	185	Lightning Strike. Replace well pump & wiring
08/18/2007	1	Power outage
09/02/2007	2	Power outage
Total	**194**	

System Percentage Downtime = (1-[(8,760-194)/8,760])*100 = 2.3%

Figure 1: Tetrachloroethene Influent Concentrations

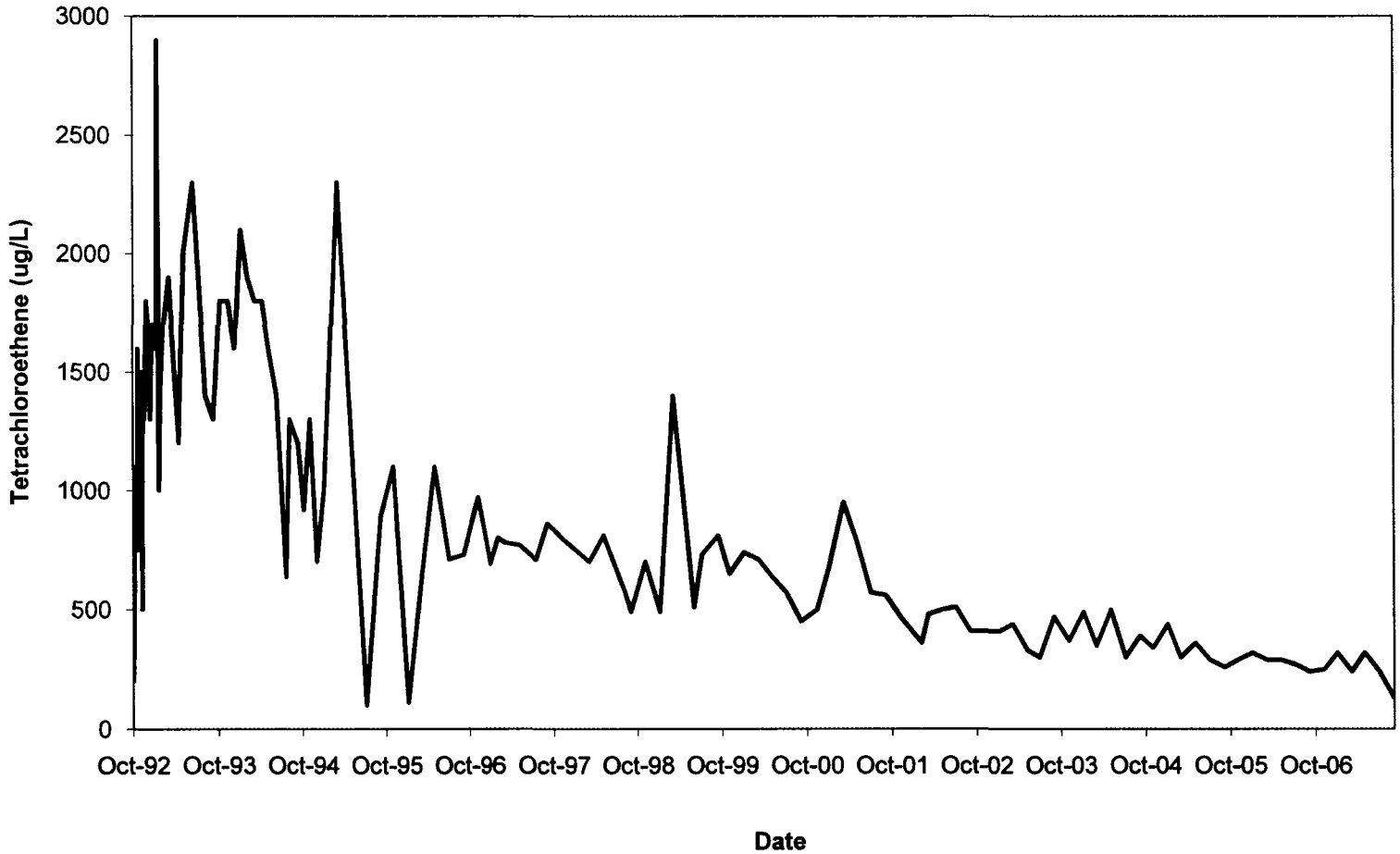


Figure 2: Trichloroethene Influent Concentrations

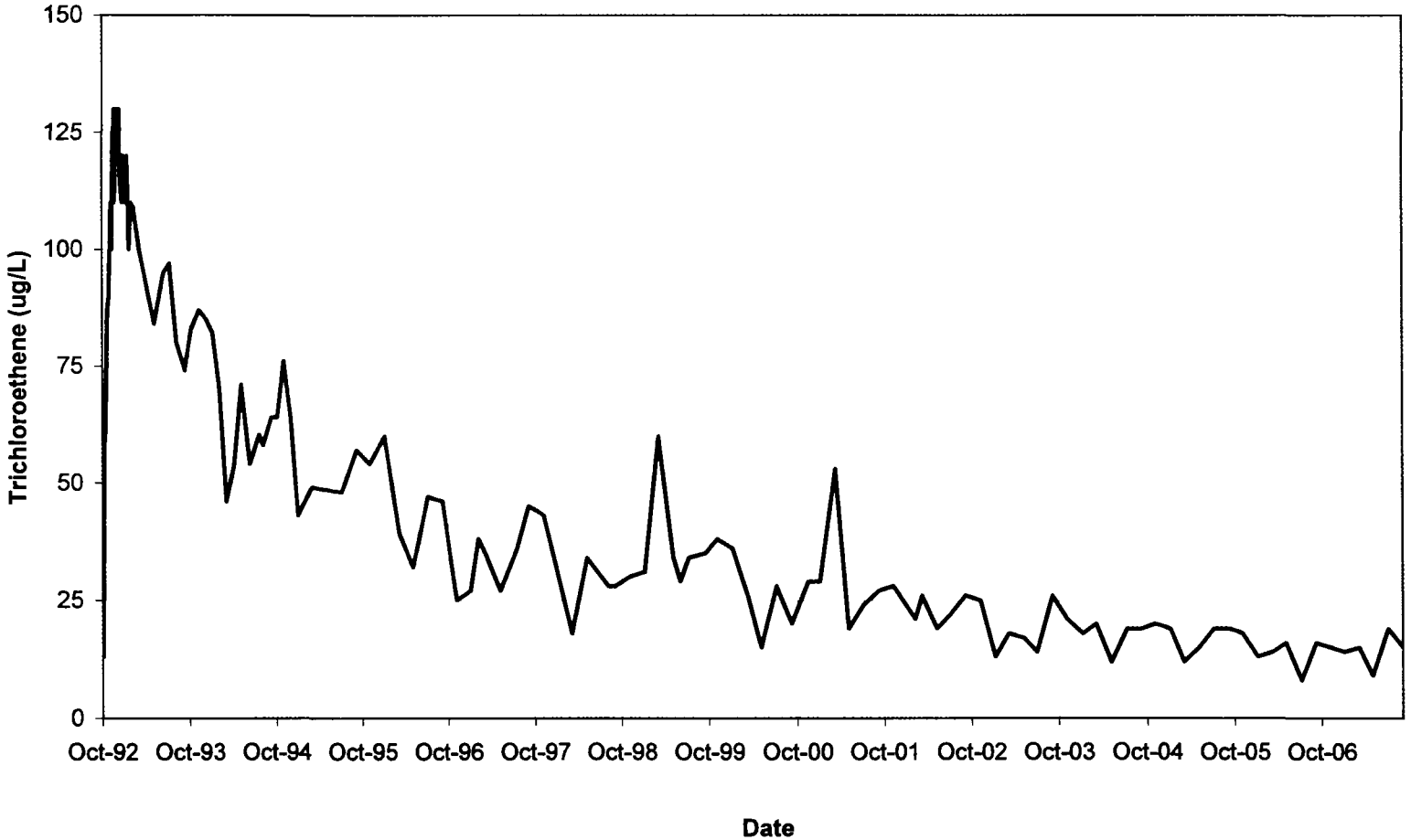


Figure 3 - UniFirst Ground Water Treatment Plant, Woburn, Year 15 Operations

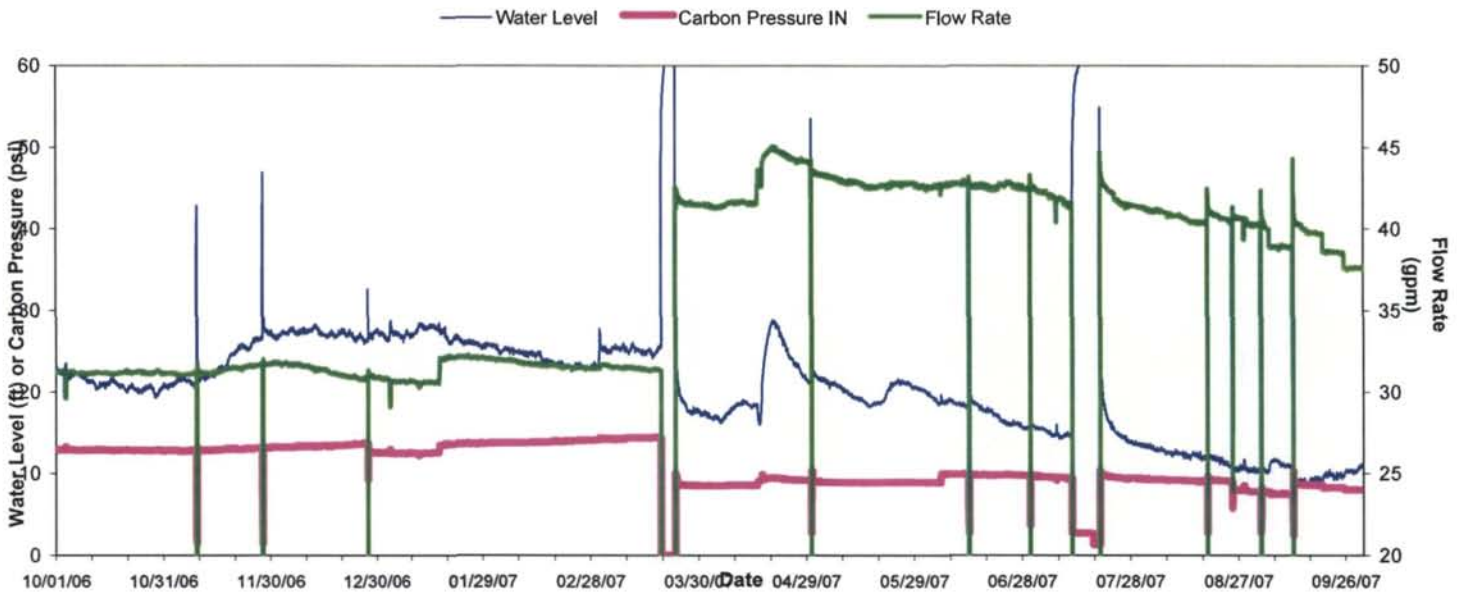


Figure 4 - Cumulative Chemical Recovery

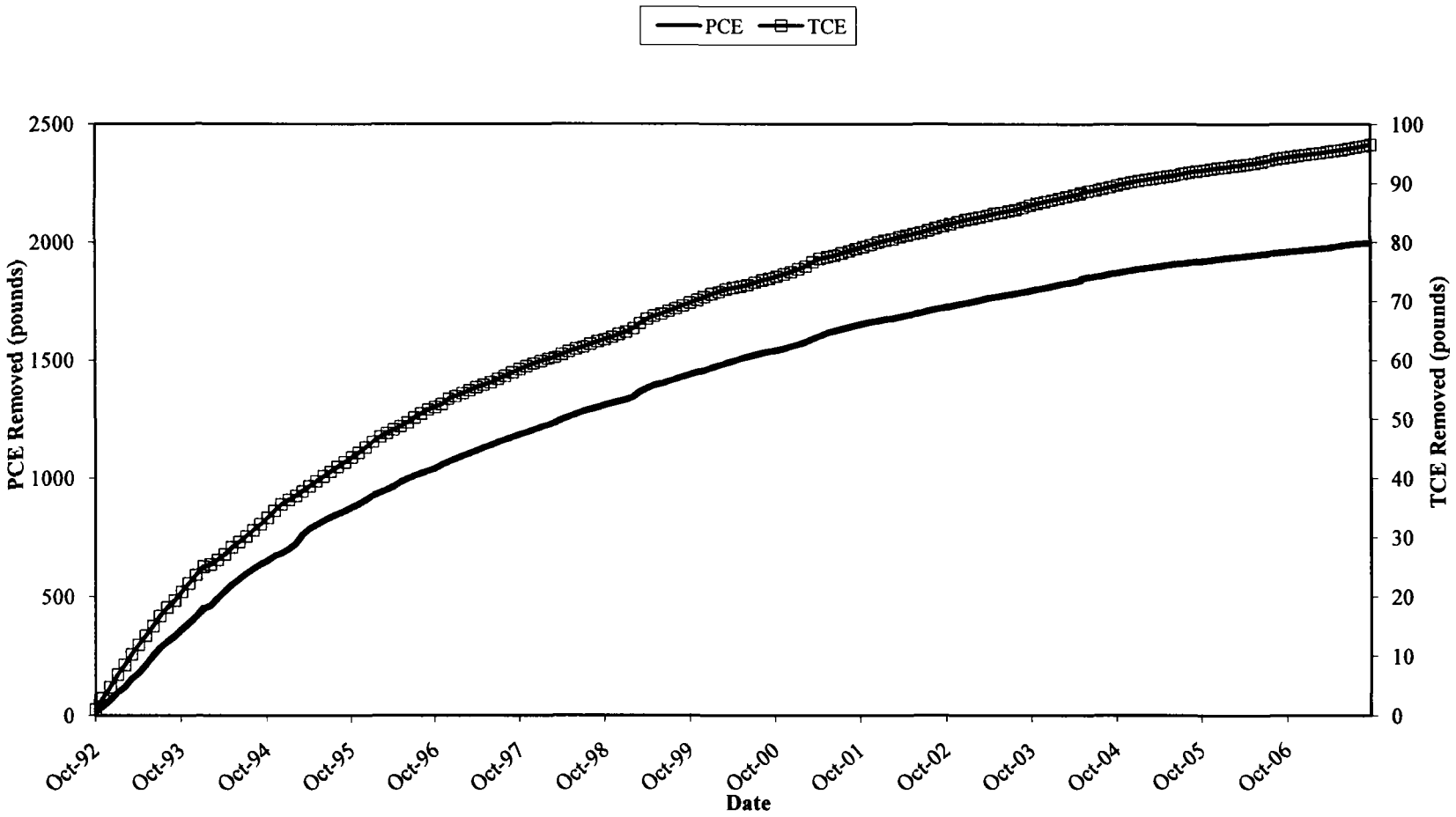
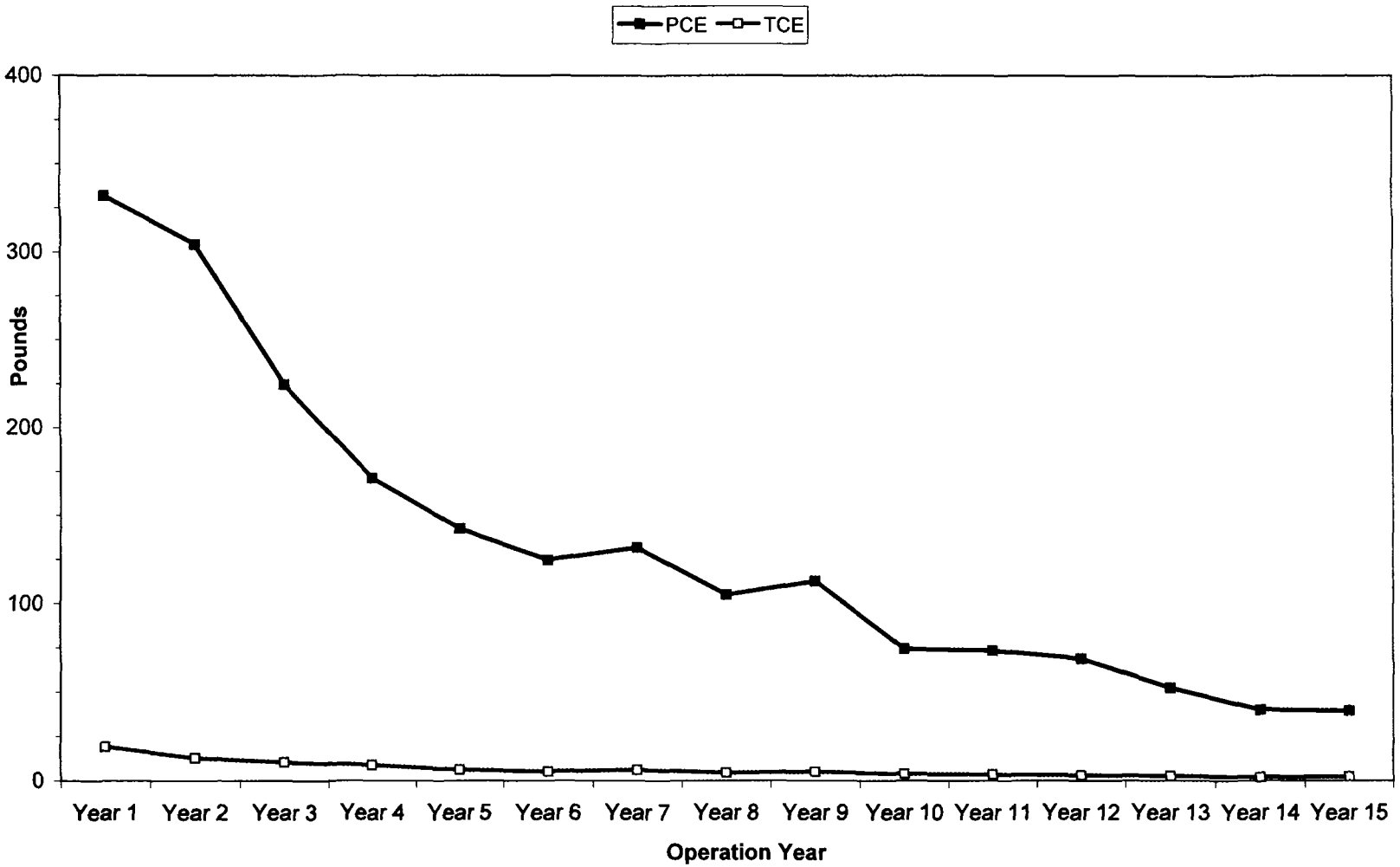


Figure 5 - Annual Chemical Recovery



Appendices

APPENDIX A
POTENTIOMETRIC MAPS AND CROSS SECTIONS

APPENDIX B
2007 GROUNDWATER ELEVATION DATA

APPENDIX C
DATA LOGGER HYDROGRAPHS, OCTOBER 2006- SEPTEMBER 2007

APPENDIX D
APRIL 2007 GROUNDWATER QUALITY DATA

APPENDIX E
ANNUAL MAINTENANCE REPORT & ANNUAL INSPECTION REPORT

APPENDIX F
TREATMENT PLANT MONITORING DATA

APPENDIX G
FINAL EFFLUENT TCL/TAL ANALYTICAL REPORT

APPENDIX H
CONTAMINANT MASS REMOVAL TABLE

Appendix A

Potentiometric Maps
& Cross-Sections

SOUTH
SOUTHWEST
C

NORTH
NORTHEAST
C'

ELEVATION IN FEET ABOVE NATIONAL GEODETIC VERTICAL DATUM

S97S/M/D
S64S/M/D
INTERSECTION L-L'
UC11
S63S/D
DEWEY AVE.
MARIETTA ST.
S71S/D
UC7A
OLYMPIA AVE.
UC25
PROJECTED INTO BEDROCK
UC4
UC16
UC5
UC8
UC20
UC17
UNIFIRST BLDG.
UC22
UC23
ROUTE 128 RAMP
US1
INTERSECTION D-D'
BLISS MARINE
ROUTE 128

UNCONSOLIDATED DEPOSITS
BEDROCK

48.07
46.90
47.03
55.54
55.54
55.22
59.88
59.51
66.74
61.12
61.51
55.61
68.47
62.03
64.88
70.37
58.96
68.90
44.06
38.64
36.04
19.99
39.93
38.93
50.76
45.66
77.32
NM
*

60
50
20
-30
40
70

50
VERTICAL EXAGGERATION 5:1
0
250
SCALE IN FEET

EXPLANATION

59.34 — MONITORING WELL SCREEN, VALUE INDICATES WATER LEVEL ELEVATION MEASURED APRIL, 2007

OPEN INTERVAL BETWEEN PACKERS IN MULTI LEVEL INSTALLATIONS AND PORT LOCATION

60 — EQUAL POTENTIAL CONTOUR (DASHED WHERE INFERRED)

GEOLOGIC CONTACT (DASHED WHERE INFERRED)

POTENTIOMETRIC SURFACE (DASHED WHERE INFERRED)

NM — NOT MEASURED DUE TO UNFAVORABLE FIELD CONDITIONS OR A MALFUNCTIONING PORT

* — ANOMALOUS VALUE NOT CONSIDERED IN CONTOURS

NOTES: 1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.

2: THE EXTENT OF THE UC22 DRAWDOWN CONE IS ESTIMATED TO BE LOCAL.

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FIGURE A-1A

POTENTIOMETRIC CROSS-SECTION C-C'
MEASURED IN APRIL, 2007

1-2114-2\CAD\FIGURE1A.dwg

SOUTH
D

NORTH
D'

S69D
BLDG. 200
UG1
G01S/D/DB
DEWEY AVE.
INTERSECTION L–L'
OLYMPIA AVE.
UC4
UC16
UC5
UC8
UC20
UNIFIRST BLDG.
INTERSECTION I–I'
UC22
UC23-NOTE 2
ROUTE 128 RAMP
IUS1
INTERSECTION C–C'
BLISS MARINE
ROUTE 128

UNCONSOLIDATED DEPOSITS

BEDROCK

59.32
58.35
59.25
44.07
41.49
NM
37.03
50.33
NM
50.10
40.11
68.47
64.88
70.37
58.96
19.99
77.32
39.93
38.93
*
45.66
*

60
20
30
50
40
70
60
50

ELEVATION IN FEET ABOVE NATIONAL GEODETIC VERTICAL DATUM

100 90 80 70 60 50 40 30 20 10 0 −10 −20 −30 −40 −50 −60 −70 −80 −90 −100 −110 −120 −130 −140 −150 −160 −170 −180 −190 −200 −210 −220 −230 −240 −250 −260 −270 −280 −290 −300 −310 −320 −330 −340 −350 −360 −370 −380 −390 −400 −410 −420 −430

EXPLANATION

39.93 — MONITORING WELL SCREEN, VALUE INDICATES WATER LEVEL ELEVATION MEASURED APRIL, 2007

OPEN INTERVAL BETWEEN PACKERS IN MULTI LEVEL INSTALLATIONS AND PORT LOCATION

60 — EQUAL POTENTIAL CONTOUR (DASHED WHERE INFERRED)

GEOLOGIC CONTACT (DASHED WHERE INFERRED)

POTENTIOMETRIC SURFACE (DASHED WHERE INFERRED)

NM — NOT MEASURED DUE TO UNFAVORABLE FIELD CONDITIONS OR A MALFUNCTIONING PORT

* — ANOMALOUS VALUE NOT CONSIDERED IN CONTOURS

50
VERTICAL EXAGGERATION 5:1
0 250
SCALE IN FEET

NOTES:
1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.
2. THE POSITION OF WELL UC23 IS ADJUSTED TO THE NORTH < 50' TO GRAPHICALLY ILLUSTRATE THIS WELL
3. THE EXTENT OF THE UC22 DRAWDOWN CONE IS ESTIMATED TO BE LOCAL.

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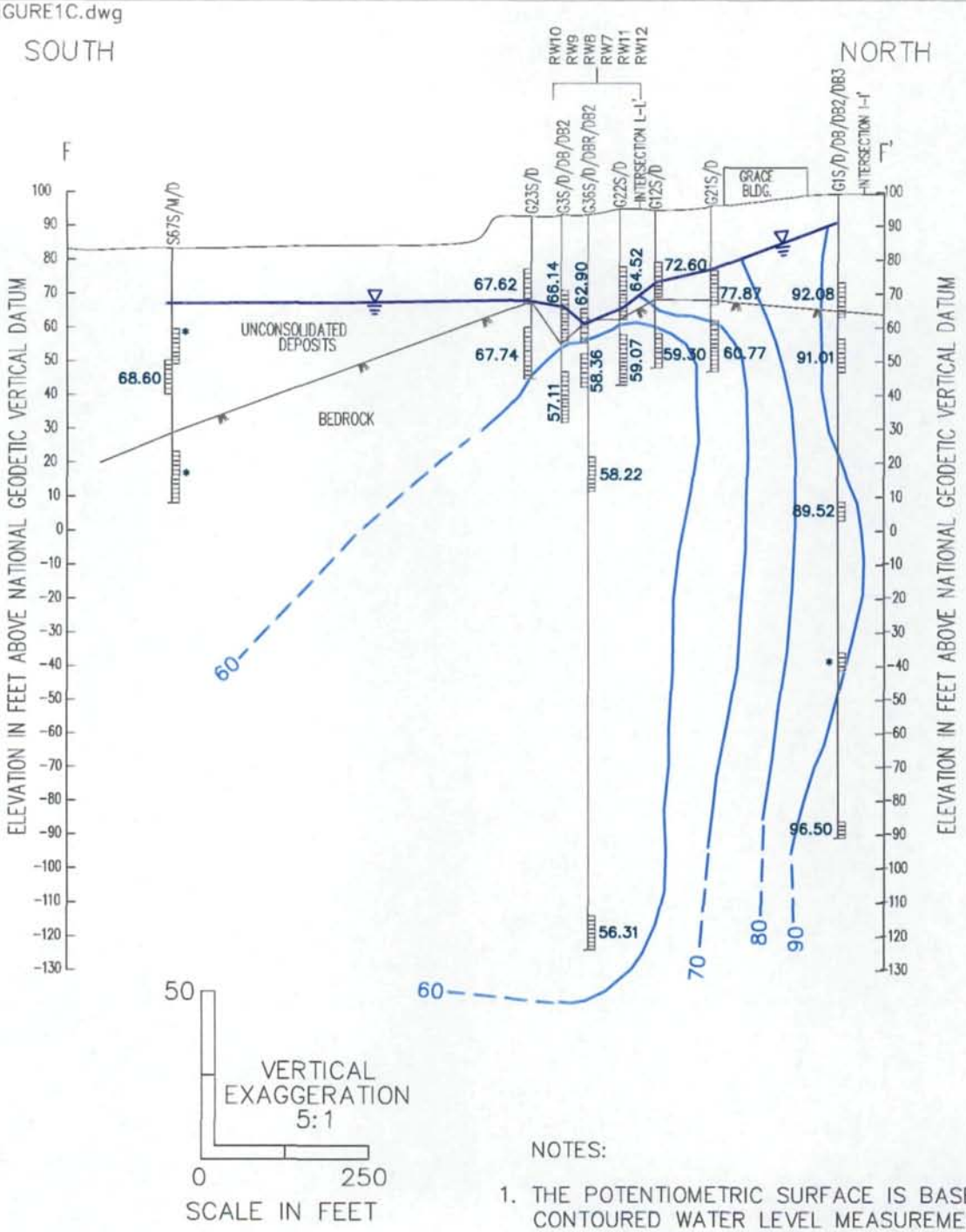
FIGURE A-1B

POTENTIOMETRIC CROSS–SECTION D–D'
MEASURED IN APRIL, 2007

1–2114–2\CAD\FIGURE1B.dwg

1-2114-2\CAD\FIGURE1C.dwg



NOTES:

1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.

EXPLANATION

58.36 — MONITORING WELL SCREEN, VALUE INDICATES WATER LEVEL ELEVATION MEASURED APRIL, 2007

60 — EQUAL POTENTIAL CONTOUR (DASHED WHERE INFERRED)

GEOLOGIC CONTACT (DASHED WHERE INFERRED)

POTENTIOMETRIC SURFACE (DASHED WHERE INFERRED)

* — ANOMALOUS VALUE NOT CONSIDERED IN CONTOURS

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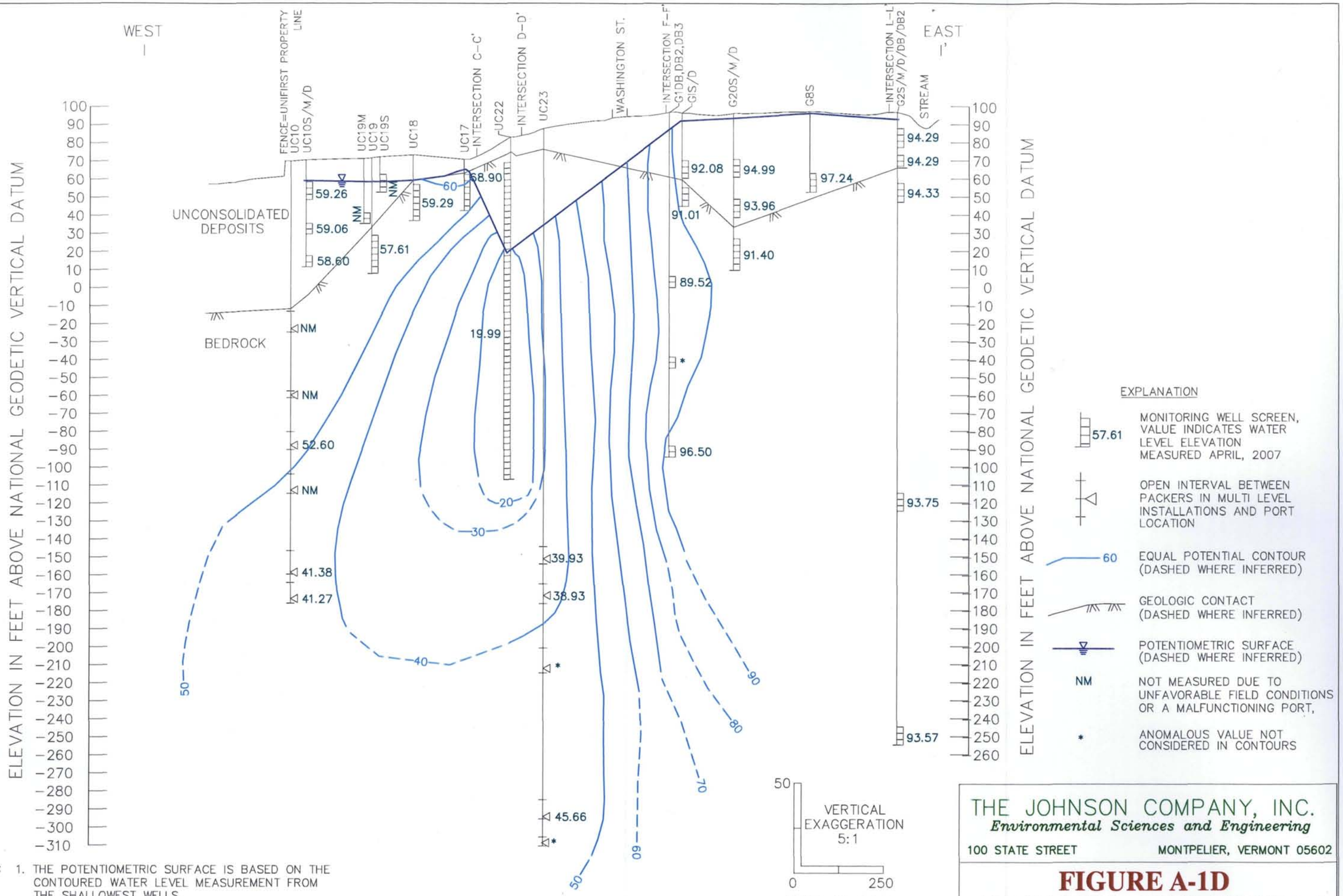
FIGURE A-1C

POTENTIOMETRIC CROSS-SECTION F-F'
MEASURED IN APRIL, 2007



NOTES:
1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.
2. THE EXTENT OF THE UC22 DRAWDOWN CONE IS ESTIMATED TO BE LOCAL.

1-2114-2\CAD\FIGURE1D.dwg

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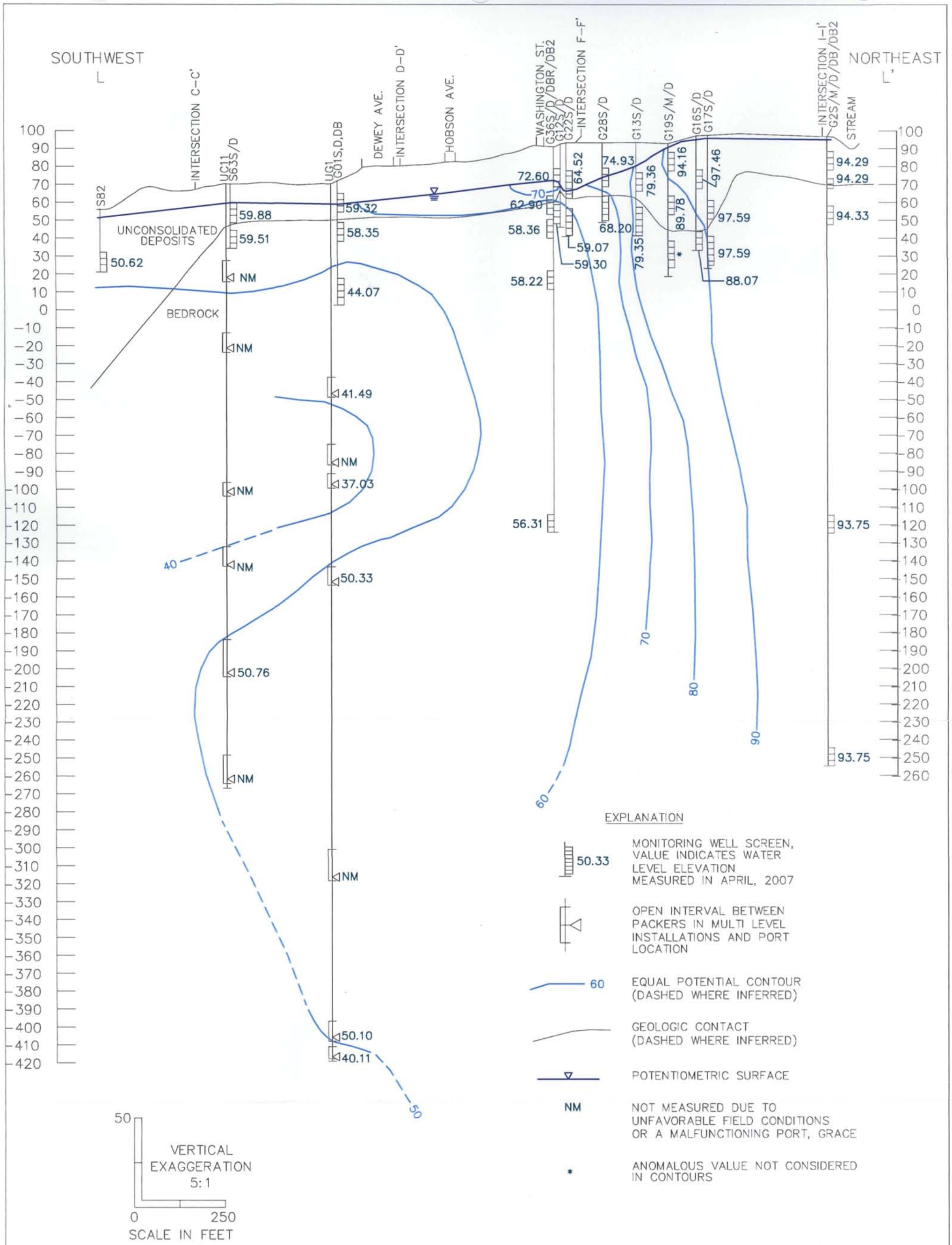
FIGURE A-1D

POTENTIOMETRIC CROSS-SECTION I-I'
MEASURED IN APRIL, 2007



NOTES: 1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.

2: ELEVATION IN FEET ABOVE NATIONAL GEODETIC VERTICAL DATUM.

3: SEE GEOTRANS REPORT ON GRACE PROPERTY FOR DETAIL ON WATER LEVEL DRAWDOWN DUE TO GRACE PUMPING.

4. G01S, G01D, G01DB USED 5/6/97 SURVEY ELEVATION DATA.

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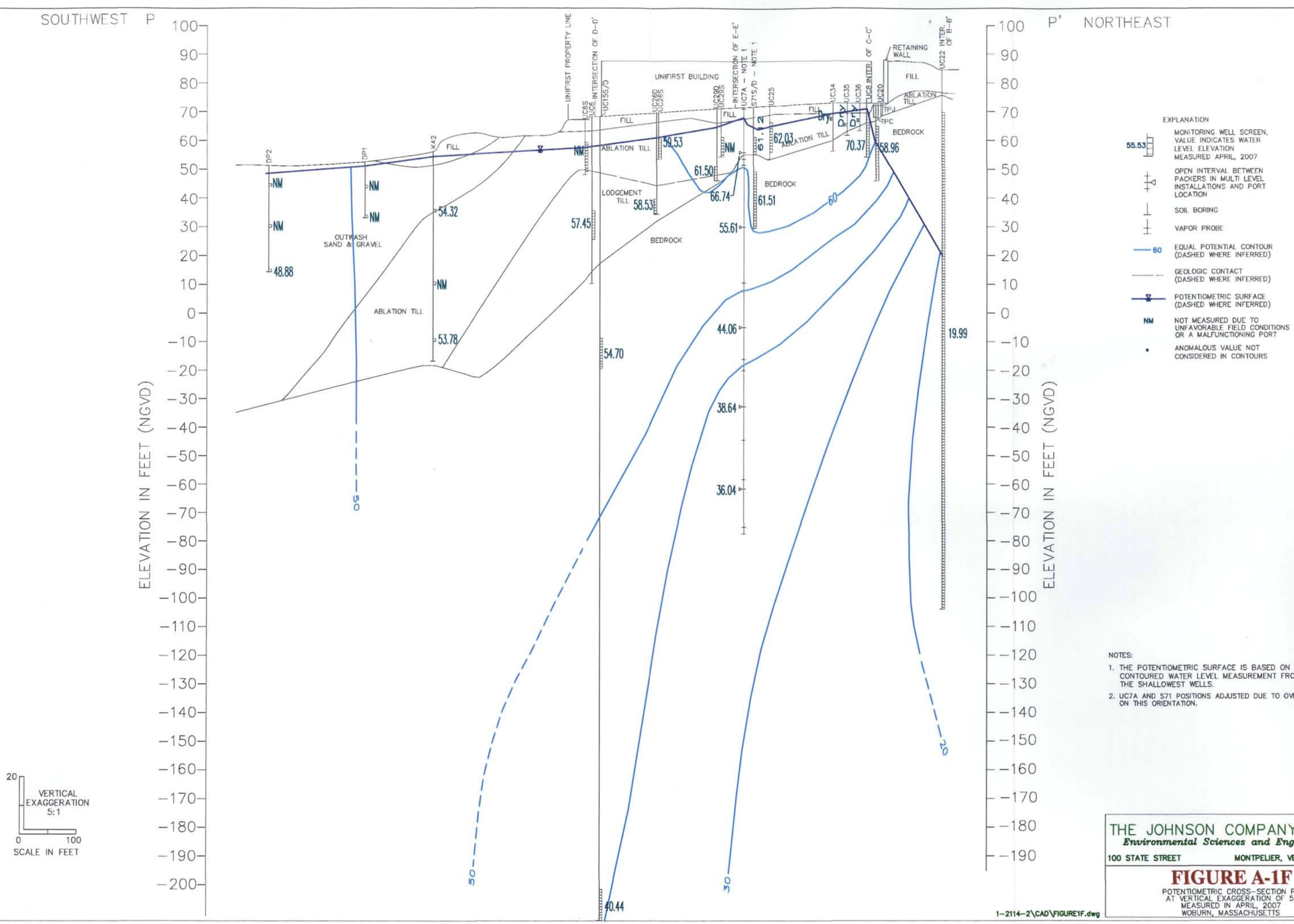
FIGURE A-1E

POTENTIOMETRIC CROSS-SECTION L-L'
MEASURED IN APRIL, 2007

1-2114-2\CAD\FIGURE1E.dwg

SOUTHWEST P

P' NORTHEAST



EXPLANATION

- 55.53 — MONITORING WELL SCREEN, VALUE INDICATES WATER LEVEL ELEVATION MEASURED APRIL, 2007
- OPEN INTERVAL BETWEEN PACKERS IN MULTI LEVEL INSTALLATIONS AND PORT LOCATION
- SOIL BORING
- VAPOR PROBE
- 60 — EQUAL POTENTIAL CONTOUR (DASHED WHERE INFERRED)
- GEOLOGIC CONTACT (DASHED WHERE INFERRED)
- POTENTIOMETRIC SURFACE (DASHED WHERE INFERRED)
- NM — NOT MEASURED DUE TO UNFAVORABLE FIELD CONDITIONS OR A MALFUNCTIONING PORT
- ANOMALOUS VALUE NOT CONSIDERED IN CONTOURS

20 VERTICAL EXAGGERATION 5:1

0 100 SCALE IN FEET

NOTES:

1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.
2. UC7A AND S71 POSITIONS ADJUSTED DUE TO OVERLAP ON THIS ORIENTATION.

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FIGURE A-1F

POTENTIOMETRIC CROSS-SECTION P-P'
AT VERTICAL EXAGGERATION OF 5:1
MEASURED IN APRIL, 2007
WOBURN, MASSACHUSETTS

1-2114-2\CAD\FIGURE1F.dwg

SOUTHWEST
P

NORTHEAST
P'

NOTES:

1. THE POTENTIOMETRIC SURFACE IS BASED ON THE CONTOURED WATER LEVEL MEASUREMENT FROM THE SHALLOWEST WELLS.
2. UC7A AND S71 POSITIONS ADJUSTED DUE TO OVERLAP ON THIS ORIENTATION.

ELEVATION IN FEET (NGVD)

100 90 80 70 60 50 40 30 20 10 0 −10 −20 −30 −40 −50 −60 −70 −80 −90 −100 −110 −120 −130 −140 −150 −160 −170 −180 −190 −200 −210 −220

UNIFIRST PROPERTY LINE

INTERSECTION OF D-D'

INTERSECTION OF E-E'

INTERSECTION OF C-C'

UC22 INTERSECTION OF B-B'

UNIFIRST BUILDING

DP2 DP1 K42 UC6S UC15 UC26S UC26D UC29S UC29D UC7A S71S/D UC25 UC34 UC35 UC36 UC8 UC20

RETAINING WALL

FILL

ABLATION TILL

TPJ

TPC

BEDROCK

LODGEMENT TILL

OUTWASH SAND & GRAVEL

NM

48.88

54.32

53.78

57.45

58.53

59.53

61.50

66.74

55.61

61.12

61.51

62.03

Dry

Dry

Dry

70.37

58.96

54.70

44.06

38.64

36.04

19.99

40.44

50 60 50 40 30 20

EXPLANATION

57.45 MONITORING WELL SCREEN, VALUE INDICATES WATER LEVEL ELEVATION MEASURED APRIL, 2007

OPEN INTERVAL BETWEEN PACKERS IN MULTI LEVEL INSTALLATIONS AND PORT LOCATION

SOIL BORING

VAPOR PROBE

EQUAL POTENTIAL CONTOUR (DASHED WHERE INFERRED)

GEOLOGIC CONTACT (DASHED WHERE INFERRED)

POTENTIOMETRIC SURFACE (DASHED WHERE INFERRED)

NM NOT MEASURED DUE TO UNFAVORABLE FIELD CONDITIONS OR A MALFUNCTIONING PORT

40 VERTICAL EXAGGERATION 2.5:1

0 100 SCALE IN FEET

1-2114-2\CAD\FIGURE1G.dwg

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FIGURE A-1G

POTENTIOMETRIC CROSS-SECTION P-P'
AT VERTICAL EXAGGERATION OF 2.5:1
MEASURED IN APRIL, 2007
WOBURN, MASSACHUSETTS

PLAN REFERENCE
BASE PLAN PREPARED BY ENSR CONSULTING & ENGINEERING, AND PROVIDED AS A DIGITAL FILE.

250 0 250 500

SCALE IN FEET
1" = 250'-0"

EXPLANATION

- ● GROUNDWATER MONITORING POINTS
- NM NOT MEASURED
- 55 —— LINE OF EQUAL WATER ELEVATION, FIVE FOOT CONTOUR INTERVAL, DASHED WHERE INFERRED
- * SEE OTHER SHEETS

NOTE:
1. SHALLOW BEDROCK WELLS ARE DESIGNATED AS THOSE WELLS WITHIN 50 FEET OF THE BEDROCK SURFACE. WHERE TWO WELLS ARE WITHIN 50 FEET AT ONE LOCATION, THE WELL NEAR THE BEDROCK SURFACE WAS USED.
2. WELL UC22 IS THE GROUND WATER EXTRACTION WELL OPEN TO DEEP AND SHALLOW BEDROCK AND IS INCLUDED ON THIS MAP.
3. CONTOURS ON GRACE PROPERTY REFLECT WATER LEVEL ELEVATIONS NO SHOWN, FOR MORE DETAIL SEE GEOTRANS REPORT.

ROUTE 128 RAMP
OLYMPIA AVENUE
25 OLYMPIA AVENUE
21 OLYMPIA AVENUE
UNIFIRST CORPORATION
OREGON AVE.
DEWEY AVENUE
W.R. GRACE
TOWER OFFICE PARK
74-124 CUMMINGS PARK
2-36 CUMMINGS PARK
38-72 CUMMINGS PARK
WASHINGTON STREET
CEDAR STREET
200 WEST CUMMINGS PARK
300 WEST CUMMINGS PARK
400 WEST CUMMINGS PARK
500 WEST CUMMINGS PARK
600 WEST CUMMINGS PARK
800 WEST CUMMINGS PARK

57.18 IUS2A
77.32 IUS1
IUS3A 64.56
NM UC10-6
UC19 57.61
UC18 59.29
UC17 65.90
UC22 19.99
UC20 58.96
UC16
UC4 66.47
S70D 57.30
UC7A-4 55.61
S71D 61.51
G1D 91.01
G20D 91.40
G2D 94.33
G19D 90.82
G17D 97.59
G26D 94.99
G16D 88.07
G21D 60.77
G12D 59.30
G22D 59.07
G28D 68.20
G13D 79.35
88.10 G5D
G24D 87.89
G36D 58.36
G23D 67.74
G11D 68.14
G3D 57.11
S81D 50.05
G01D 58.35
59.51 S63D
S67D NM
S69D 59.25
S64D 55.22
56.26 S65DR
S97D 47.03
S66D 57.19
H

FIGURE A-2

POTENTIOMETRIC SURFACE OF SHALLOW BEDROCK IN APRIL, 2007 LOCATED ON WELLS G & H SITE WOBURN, MASSACHUSETTS

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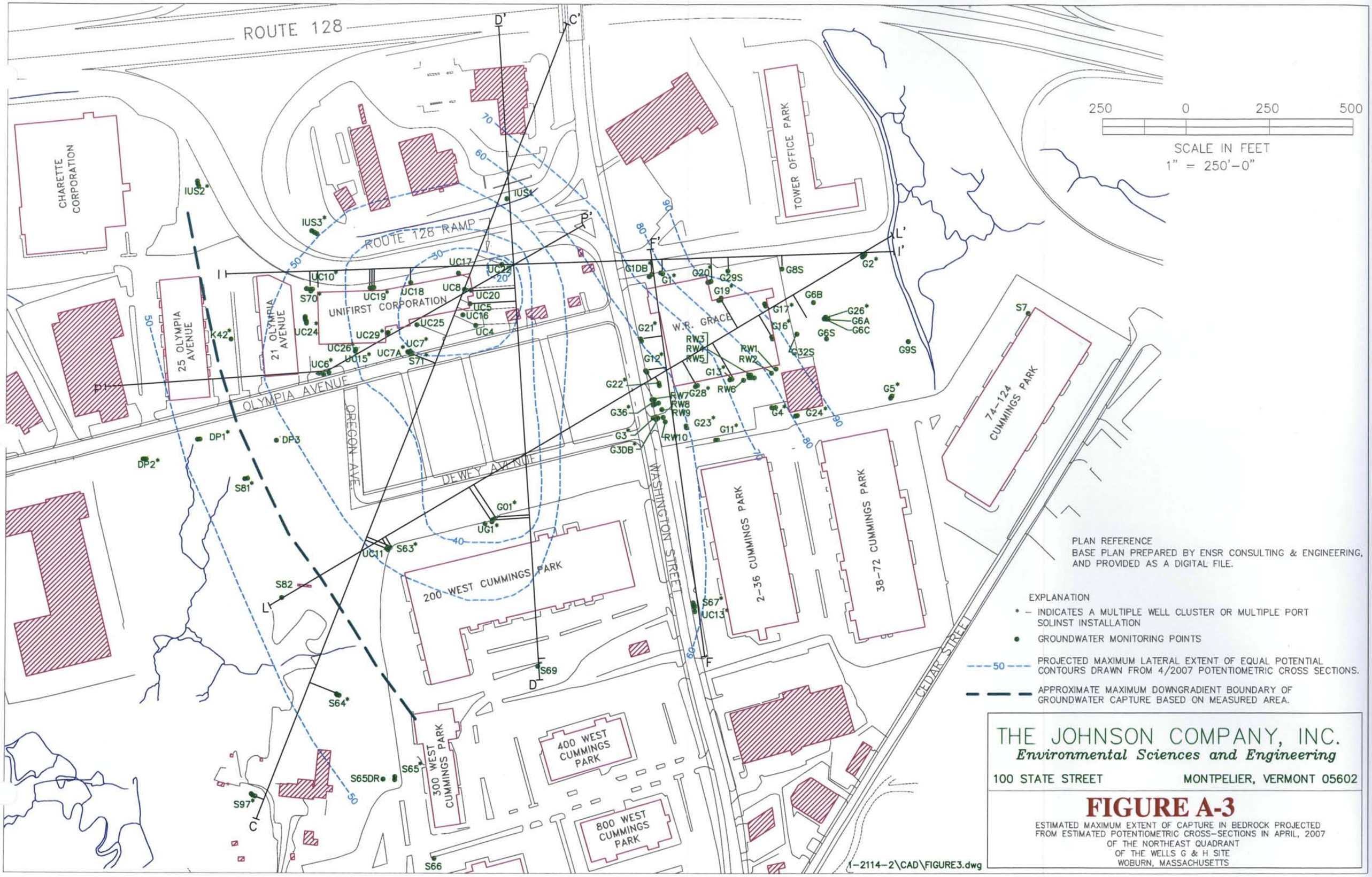
CAD\FIGURE2.dwg DATE: 11/1/07 DRAWN BY: TJK PROJECT: 1-2114-2 SCALE: 1"=250'


ROUTE 128
ROUTE 128 RAMP
CHARETTE CORPORATION
TOWER OFFICE PARK
UNIFIRST CORPORATION
W.R. GRACE
25 OLYMPIA AVENUE
21 OLYMPIA AVENUE
OLYMPIA AVENUE
OREGON AVENUE
DEWEY AVENUE
WASHINGTON STREET
CEDAR STREET
200 WEST CUMMINGS PARK
300 WEST CUMMINGS PARK
400 WEST CUMMINGS PARK
800 WEST CUMMINGS PARK
2-36 CUMMINGS PARK
38-72 CUMMINGS PARK
74-124 CUMMINGS PARK
250 0 250 500
SCALE IN FEET
1" = 250'-0"
PLAN REFERENCE
BASE PLAN PREPARED BY ENSR CONSULTING & ENGINEERING, AND PROVIDED AS A DIGITAL FILE.
EXPLANATION
* – INDICATES A MULTIPLE WELL CLUSTER OR MULTIPLE PORT SOLINST INSTALLATION
GROUNDWATER MONITORING POINTS
50 PROJECTED MAXIMUM LATERAL EXTENT OF EQUAL POTENTIAL CONTOURS DRAWN FROM 4/2007 POTENTIOMETRIC CROSS SECTIONS.
APPROXIMATE MAXIMUM DOWNGRADIENT BOUNDARY OF GROUNDWATER CAPTURE BASED ON MEASURED AREA.
THE JOHNSON COMPANY, INC.
Environmental Sciences and Engineering
100 STATE STREET MONTPELIER, VERMONT 05602
FIGURE A-3
ESTIMATED MAXIMUM EXTENT OF CAPTURE IN BEDROCK PROJECTED FROM ESTIMATED POTENTIOMETRIC CROSS-SECTIONS IN APRIL, 2007 OF THE NORTHEAST QUADRANT OF THE WELLS G & H SITE WOBURN, MASSACHUSETTS
1-2114-2\CAD\FIGURE3.dwg

UC10-1						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
190.0 69.0 65.0 U 10.0 U 5.0	230 75 cis 560 U 2.0 2	55J 23J cis 450 U 10.0 U 5.0	200 78 540 U 2.0 U 1.0	330 120 cis 460 U 2.0 UJ 1.0	260 92 362 U 2.0 1	260 110 cis 390E U 2.0 J 1.0
324	867	528	818	910	715	761

UC10-2						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
150.0 63.0 100.0 U 10.0 U 5.0	190 52 cis 140 U 2.0 U 1.0	150 56 cis 120 U 2.0 U 1.0	140 44 110 U 2.0 U 1.0	100 50 162 U 2.0 UJ 1.0	57 27 cis 200E 2 U 1.0	61 25 cis 120 U 2.0 U 1.0
313	382	326	294	312	286	206

UC10-3						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
98.0 36.0 92.0 U 10.0 U 5.0	130 44 cis 200 U 2.0 U 1.0	120 43 cis 120 U 2.0 U 1.0	54 28 190 U 2.0 U 1.0	32 23 372 U 2.0 UJ 1.0	84 24 cis 270E U 2.0 U 1.0	30 15 cis 160 U 2.0 U 1.0
226	374	283	270	427	378	265

UC10-4						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
170.0 34.0 43.0 U 10.0 U 5.0	130 35 cis 98 U 2.0 0.8 J	120 28 cis 50 U 2.0 U 1.0	68 27 110 U 2.0 U 1.0	74 28 cis 110 U 2.0 UJ 1.0	86 J 24 J cis 82 U 2.0 U 1.0	52 J 18 cis 110 U 2.0 U 1.0
247	263.9	198	205	212	192	180

UC10-5						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
170.00 33.0 60.0 U 10.0 U 5.0	90 30 cis 200 U 2.0 U 1.0	28 14 cis 310 U 8.0 U 4.0	58 19 220 U 2.0 U 1.0	20 14 cis 320 U 2.0 UJ 1.0	17 8 cis 300E 2 U 1.0	31 14 cis 180 U 2.0 U 1.0
263	320	352	297	354	327	225

UC10-6						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
280.0 20.0 32.0 U 10.0 6.8	13 14 cis 80 U 2.0 U 1.0	12 7 cis 80 U 2.0 U 1.0	14 14 64 U 2.0 U 1.0	22 23 cis 100 U 2.0 U 1.0	17 8 cis 87 U 2.0 U 1.0	11 3 56 U 2.0 U 1.0
338.8	107	99	92	130	112	70

UC10S						
4/98+	5/02	5/03	4/04	4/05	5/06	4/07
U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 UJ 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0
ND	ND	ND	ND	ND	ND	ND

UC10M						
4/98+	5/02	5/03	4/04	4/05	5/06	4/07
U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0
ND	ND	ND	ND	ND	ND	ND

UC10D						
4/98+	5/02	5/03	4/04	4/05	5/06	4/07
U 1.0J U 1.0J U 2.0J U 2.0J U 1.0J	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	0.7 J U 1.0 U 2.0 U 2.0 U 1.0	U 1.0 U 1.0 0.7 J U 2.0 U 1.0	U 1.0 U 1.0 cis 0.7 J U 2.0 U 1.0
ND	ND	ND	ND	0.7 J	0.7 J	ND

G36S							
3/91	4/99	6/02	4/03	4/04	4/05	5/06	4/07
25.0U 430.0 120.0 50.0U 25.0U	U 2.0 U 2.0 U U 2.0 U 2.0	U 2.0 U 2.0 U 2.0 U 2.0 U 2.0	U 2.0 U 2.0 U 2.0 U 2.0 U 2.0	U 0.5 U 0.5 U 0.5 U 0.5 U 0.5		U 0.5 U 0.5 U 0.5 U 1.0 U 0.5	U 0.5 U 0.5 U 0.5 U 1.0 U 0.5
550	ND	ND	ND	ND	DRY	ND	ND

G36D							
3/91	4/99	6/02	4/03	4/04	11/05	5/06	4/07
42.0J 2100.0J 1500.0J 100.0UJ 50.0UJ	U 2.0 6.4 2.7 U 2.0 U 2.0	U 2.0 5.2 cis 2.9 U 2.0 U 2.0	U 2.0 U 2.0 U 2.0 U 2.0 U 2.0	U 0.5 0.55 U 0.5 U 1.0 U 0.5	U 0.5 0.6 U 0.5 U 1.0 U 0.5	U 0.5 U 0.5 U 0.5 U 1.0 U 0.5	U 0.5 U 0.5 U 0.5 U 1.0 U 0.5
3,642	9.1	8.1	ND	0.55	0.6	ND	ND

G36DBR							
3/91	4/99	6/02	4/03	4/04	5/05	5/06	4/07
6.0 R R 10.0U 5.0U	34.5 31.2 24.2 U 2.0 U 2.0	40.9 22.2 cis 29.2 U 2.0 U 2.0	5.4 11.1 26.1 U 2.0 U 2.0	0.58 4.7 10.0 U 1.0 U 0.5	14 13 6 U 1.0 U 0.5	7 20 20 U 1.0 U 0.5	12 24 23 U 1.0 U 0.5
6	89.9	92.3	42.6	15.28	33.0	47.0	59

G36DB2							
3/91	4/99	6/02	4/03	4/04	5/05	5/06	4/07
7.0 R R 10.0U 5.0U	18.2 22.8 11.4 U 2.0 U 2.0	6.6 25.7 cis 10.2 U 2.0 U 2.0	5.4 24.6 11.7 U 2.0 U 2.0	2.5 23.0 11.0 U 1.0 U 0.5	U 0.5 18.0 11.0 U 1.0 U 0.5	U 0.5 16.0 11.0 U 1.0 U 0.5	U 0.5 7.1 5.1 U 1.0 U 0.5
7	50.4	42.5	41.7	36.5	29.0	27.0	12.2

UC14-1		
2/91	8/93	4/97
62J U 5.0U U 5.0U U 10.0U U 4.0J	10.0 5.0 3.0 0.5 J 4.0	23.0 7.0 2.0J U 2.0 2.0
67	21	34

UC14-2			
2/91	8/93	4/97	
U 5.0J U 5.0J U 5.0J 10.0U 9.0J	U 2.0 U 2.0 U 2.0 0.5 4.0	7.0 5.0 3.0 U 2.0 5.0	
19	10	20	

UC14-3			
2/91	8/93	4/97	
U 25.0J U 25.0J U 25.0J U 50.0J U 25.0J	2.0 U 5.0 U 3.0J U 0.5 4.0	5.0 2.0 0.7J U 2.0 3.0	
ND	6.8	10.7	

UC14-4			
2/91	8/93	4/97	
U 5.0J U 5.0J U 5.0J U 10.0J U 5.0J	19.0J 17.0J 4.0 U 0.5 3.0	2.0 6.0 27.0 U 2.0 3.0	
ND	43	38	

UC14-5				
2/91	5/91	8/93	4/97	
140.0J 11.0J U 5.0J U 10.0J U 5.0J	96.0 U 5.0 --- U 10.0 5.0	6.0 15.0 3.0 U 0.5 5.0	2.0 16.0 12.0 U 2.0 3.0	
151	96	29	33	

S70M					
12/92+	8/93	8/94	8/95	5/96	
U 5.0 U 5.0 U 5.0 U 10.0 U 5.0	U 0.5 U 0.5 --- U 0.5 U 0.5	U 10.0 U 10.0 U 10.0 U 10.0 U 10.0	U 10.0 U 10.0 U 10.0 U 10.0 U 10.0	U 10.0 U 10.0 U 10.0 U 10.0 U 10.0	
ND	ND	ND	ND	ND	

S70D						
12/92+	5/02	5/03	4/04	4/05	5/06	4/07
440.0 7.2 U 5.0 U 10.0 U 5.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	2J U 1.0 U 1.0 U 2.0 U 1.0	2 0.3J U 1.0 U 2.0 U 1.0	2 U 1.0 U 1.0 U 2.0 UJ 1.0	1 U 1.0 U 2.0 U 2.0 U 1.0	J 1.0 U 1.0 U 1.0 U 2.0 U 1.0
447.2	ND	2	2.3	2.0	1.0	1.0

UC6						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
2200 U 100.0 U 100.0 U 200.0 U 100.0	59 J 5 J cis 2 J U 2.0 U 1.0	36 3 U 1.0 U 2.0 U 1.0	20 2 0.3J U 2.0 U 1.0	33 8 9 U 2.0 UJ 1.0	23 6 cis 4 U 2.0 U 2.0	26 7 cis 2 U 2.0 U 1.0
2,200	66	39	22.3	50	33	35

UC6S							
4/98+	5/02	5/03	4/04	4/05	5/06	4/07	
45.0 U 1.0 U 2.0 U 2.0 U 1.0	0.7 J U 1.0 U 2.0 U 2.0 U 1.0	2 U 1.0 U 1.0 U 2.0 U 1.0	6 U 1.0 U 2.0 U 2.0 U 1.0	5 J U 1.0 0.5 J U 2.0 UJ 1.0	2 U 1.0 cis 2 U 2.0 U 1.0	3 U 1.0 U 1.0 U 2.0 U 1.0	
45	0.7	2	6	5.5 J	4	3	

S81S						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
50.0D U 5.0 U 5.0 U 10.0 U 5.0	2 U 1.0 U 2.0 U 2.0 U 1.0	7J U 1.0 U 1.0 U 2.0 1J	11 U 1.0 U 1.0 U 2.0 U 1.0	10 U 1.0 U 1.0 U 2.0 U 1.0	6 U 1.0 U 1.0 U 2.0 U 1.0	8 U 1.0 U 1.0 U 2.0 U 1.0
50	2	8	11	10	6	8

S81M						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
160.00 U 5.0 U 5.0 U 10.0 17.0	160 J 4.0 cis 2.0 U 2.0 11	92J 4 cis 2 U 2.0 7	83 2 0.7J U 2.0 U 1.0	97 3 1 U 2.0 5	82 3 cis 0.7 J U 2.0 U 1.0	88 3 cis 1 U 2.0 5
177	177	105	85.7	106	85.7	97

S81D						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
320.00 21.0 7.0 U 10.0 16.0	200 J 11 U 2.0 U 2.0 2	100J 5 cis 0.8J U 2.0 U 1.0	140 5 cis 0.6J U 2.0 U 1.0	120 5 cis 0.7J U 2.0 1.0	100 4 cis U 1.0 U 2.0 U 1.0	92 4.0 cis J 0.7 UJ 2.0 J 1.0
364	213	105.8	145.6	126.7	104	97.7

S71S						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
1100 U 50.0 U 50.0 U 100.0 U 50.0	100 J U 1.0 U 2.0 U 2.0 0.9 J	92 U 1.0 U 1.0 U 2.0 U 1.0	78 0.4J U 1.0 U 2.0 U 1.0	51 0.6 J cis 0.7 J U 2.0 UJ 1.0	77 0.5 J cis 0.9 J U 2.0 1.0	26 1.0 U 1.0 U 2.0 U 1.0 U
1,100	100.9	92	78.4	52.3	79.4	26

S71D							
2/91	5/02	5/03	4/04	4/05	5/06	4/07	
53000 U 5000.0 U 5000.0 U 10000.0 U 5000.0	69 0.7 J U 0.0 U 0.0 2.0	73 U 1.0 U 1.0 U 2.0 U 1.0	76 0.5 J cis 0.4J U 2.0 U 1.0	65 0.9 J cis 0.6 J U 2.0 UJ 1.0	180 1 cis 1 U 2.0 3.0	45 0.5 J U 1.0 U 2.0 1.0 J	
53,000	71.7	73	76.9	66.5	185	46.5	

UC11-2						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
270.0 78.0J U 25.0 U 50.0 U 25.0	97 J 72 cis 280 U 2.0 U 1.0	72 56 cis 250 U 8.0 U 4.0	81 46 236 U 2.0 U 1.0	87 J 44 222 U 2.0 UJ 1.0	91 62 cis 220 E U 2.0 U 1.0	56 44 cis 240 E U 2.0 U 1.0
348	449	378	363	353	373	340

UC7-1						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
2100J 91.0J 58.0J U 200.0 190.0J	2400 60 cis 18 U 2.0 47	2400J U 50 U 50 U 100 U 50	1900 62 13 U 2.0 35	1800 65 cis 15 U 2.0 36	2500 74 cis 11 U 10.0 U 5.0	2000 110 cis 11 U 2.0 26
2,429	2,525	2,400	2,010	1,916	2,585	2,147

UC7-2						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
2300 U 100.0 U 100.0 U 200.0 220.0	1100 68 cis 34 U 2.0 86	2800J U 100 U 100 U 200 U 100	2400 120 12 U 2.0 48	2800 300 cis 22 2 J 43	2600 420 cis 22 U 4.0 42	2600 340 cis 12 U 2.0 40
2,520	1,288	2,800	2,580	3,167	3,084	2,992

UC7-3						
2/91	5/02	5/03	4/04	4/05	5/06	4/07
16000 600.0 U 500.0 U 1000.0 480.0J	2000 130 cis 84 U 2.0 65	1500J 120J cis 55 U 100 U 50	1800 75 11 U 2.0 28	1800 110 cis 71 U 2.0 42	1700 120 cis 65 U 4.0 39	1300 200 cis 59 U 2.0 33
17,080	2,259	1,675	1,914	2,023	1,924	1,592

UC7-4							
12/87	8/93	5/02	5/03	4/04	4/05	5/06	4/07
9400 160.0 130.0 R 600.0	1200 34.0 16.0 U 6.0 29.0	1600 55 cis 47 U 2.0 52	1200J U 10 cis 20 U 20 16J	1000 25 18 U 2.0 13	1500 35 cis 22 U 2.0 25	1300 54 cis 30 U 2.0 29	1000 61 cis 35 U 2.0 32
10,290	1,279	1,754	1,236	1,054	1,582	1,413	1,128

UC7-5									
12/87	4/98	4/00	4/01	5/02	5/03	4/04	4/05	4/07	
100 5.2 4.8 R ---	110J 8.0J cis 28 U 4.0J U 2.0J	190 32 cis 120 U 2.0 6.0	610 30 cis 130 U 2.0 5	NS NS NS NS NS	NS NS NS NS NS	NS NS NS NS NS	670 14 J cis 77 U 1.0 J 2.0 J	490 24 cis 30 2.0 U 5	
110	146	348	775				764	549	

S67S			
2/91	8/93	4/97	
U 50.0 U 50.0 U 50.0 U 100.0 U 50.0	U 0.5 U 6.0 U 0.5 U 0.5 1.0	93.0 1.0 1.0J U 2.0 1.0	
5	7	96	

S67M			
2/91	8/93	4/97	
U 5.0 12.0J U 5.0 U 10.0 U 5.0	0.5 10.0 0.5 0.5 3.0	U 1.0 U 1.0 U 2.0 U 2.0 U 1.0	
12	14.5	ND	

S67D			
2/91	8/93	4/97	
U 5.0 60.0 U 50.0 U 10.0 U 5.0	0.5 23.0 0.4 0.5 0.9	9.6J 22.0 6.6J U 2.0 0.5J	
60	25.3	23.7	

G01DB							
2/91	4/01	5/02	5/03	4/04	4/05	5/06	4/07
290.0 8.0J U 12.0 U 25.0 3.0J	23 2 U 2.0 U 2.0 U 1.0	20 2 U 2.0 U 2.0 U 1.0	15 U 1.0 U 1.0 U 2.0 U 1.0	15 2 U 1.0 U 2.0 U 1.0	12 2 U 1.0 U 2.0 UJ 1.0	12 2 U 1.0 U 2.0 U 1.0	8 J 1.0 U 1.0 U 2.0 U 1.0
301	25	22	15	17	14	14	9

UG1-4							
4/91	4/01	5/02	5/03	4/04	4/05	5/06	4/07
650 63.0 11.0J U 50.0 U 25.0	0.5 J 2 cis 93 U 2.0 U 1.0	U 1.0 4 cis 160 U 2.0 U 1.0	U 1.0 0.6J cis 83 U 2.0 U 1.0	U 1.0 1.0 47.0 U 2.0 U 1.0	UJ 1.0 2.0 113.0 U 2.0 UJ 1.0	U 1.0 2.0 163 U 2.0 U 1.0	U 1.0 4.0 164 U 2.0 U 1.0
724	95.5	164	83.6	48	115	165	168

UG1-6														
4/91	DUPLICATE 4/91	5/91	DUPLICATE 5/91	DUPLICATE 5/91	5/29/91	4/92	12/92	8/93	11/93	3/94	5/94	8/94	11/94	4/97
R 55.0 12.0 U 10.0 7.0	1200.0 50.0J 10.0J U100.0 U 50.0	1700.0 69.0 U 62.0 U120.0 U 62.0	1900.0 81.0 U 62.0 U120.0 U 62.0	1800.0 76.0 U 62.0 U120.0 U 62.0	11.0 U 5.0 U 5.0 U 10.0 U 5.0	R 55.0 12.0 U 10.0 7.0	U 5.0 U 5.0 U 5.0 U 10.0 U 5.0	58.0 21.0 U 0.5 0.4 J	130.0 29.0 10.0 U 10.0 U 5.0	35.0 18.0 9.0J U 10.0 U 10.0	27.0 11.0 6.0J U 10.0 U 10.0	15.0 6.0J 3.0J U 10.0 U 10.0	22.0 12.0 6.3 U 5.0 U 5.0	NS NS NS NS NS
84	1,260	1,769	1,981	1,876	11	74	ND	79.4	169	62	44	24	40.3	

LEGEND

+	NOT PREPUMPING, BUT EARLIEST AVAILABLE DATA
J	ESTIMATED VALUE
U	NOT DETECTED AT STATED DETECTION LIMIT
D	RESULT OBTAINED FROM DILUTION ANALYSIS
NS	NOT SAMPLED DUE TO DRY CONDITIONS OR WELL MALFUNCTION
R	VALUE REJECTED DUE TO EXCEEDANCE OF QUALITY CONTROL CRITERIA
E	ESTIMATED VALUE ABOVE QUANTITATIVE LIMIT
---	INDICATES COMPOUND NOT ANALYZED
cis	INDICATES VALUE REPORTED FOR cis-1,2-DICHLOROETHENE NOT TOTAL 1,2-DICHLOROETHENE
trans	INDICATES VALUE REPORTED FOR trans-1,2-DICHLOROETHENE NOT TOTAL 1,2-DICHLOROETHENE
	UNITS ARE IN ug/L (ppb)
*	INDICATES A MULTIPLE WELL CLUSTER OR MULTIPLE PORT SOLINST INSTALLATION
●	GROUNDWATER MONITORING POINTS
	PLAN REFERENCE BASE PLAN PREPARED BY ENSR CONSULTING & ENGINEERING, AND PROVIDED AS A DIGITAL FILE.

250 0 250 500

SCALE IN FEET
1" = 250'-0"

VOC DATA EXPLANATION

WELL NAME	PREPUMPING DATA 2/91	POST PUMPING DATA 8/93
TETRACHLOROETHENE	U 5.0	5.0
TRICHLOROETHENE	U 5.0	13.0
TOTAL 1,2-DICHLOROETHENE	U 5.0	10.0
VINYL CHLORIDE	U 10.0	U 0.5
1,1,1 TRICHLOROETHANE	U 5.0	U 5.0
Total VOC	ND	28

Total VOC: total of the five volatile organic compounds represented on this map. If these compounds were not detected at the detetion limits shown, the total is represented by "ND".

1-2114-2\CAD\FIGURE4.dwg

THE JOHNSON COMPANY, INC.
Environmental Sciences and Engineering
100 STATE STREET MONTPELIER, VERMONT 05602

FIGURE A-4

PRE & POST PUMPING VOC DATA FOR ALL REGULARLY MONITORED WELLS OF THE WELLS G & H SITE
WOBURN, MASSACHUSETTS

Appendix B

2007 Groundwater Elevation Data

Water Level Measurements
Wells G H
Spring 2007

Well	Date	Depth to Water (feet)	Water Level Elevation (feet above NGVD)	Comment
DP1D	4/17/2007	NM	NM	
DP1S	4/17/2007	NM	NM	
DP2D	4/17/2007	2.67	48.88	
DP2M	4/17/2007	NM	NM	
DP2S	4/17/2007	NM	NM	
DP3	4/17/2007	NM	NM	
DP36	4/16/2007	2.02	56.77	
DP37D	4/16/2007	6.44	53.10	
DP37S	4/16/2007	3.98	55.60	
G10D	4/17/2007	***	***	
G10DB	4/17/2007	***	***	
G10S	4/17/2007	***	***	
G11D	4/17/2007	24.84	68.14	
G11S	4/17/2007	*	*	Dry at 21.98 feet below mp
G12D	4/17/2007	37.03	59.30	
G12S	4/17/2007	23.67	72.60	
G13D	4/16/2007	17.13	79.35	
G13S	4/16/2007	16.81	79.36	
G14D	4/17/2007	***	***	
G14S	4/17/2007	***	***	
G15D	4/17/2007	***	***	
G15S	4/17/2007	***	***	
G16D	4/17/2007	9.71	88.07	
G16S	4/17/2007	0.34	97.46	
G17D	4/17/2007	0.16	97.59	
G17S	4/17/2007	0.00	97.59	
G18D	4/17/2007	***	***	
G18S	4/17/2007	***	***	
G19D	4/17/2007	6.61	90.82	
G19M	4/17/2007	7.70	89.78	
G19S	4/17/2007	3.31	94.16	
G1D	4/17/2007	9.44	91.01	
G1DB	4/17/2007	7.00	89.52	
G1DB2	4/17/2007	0.75	96.10	
G1DB3	4/17/2007	0.01	96.50	
G1S	4/17/2007	7.64	92.08	
G20D	4/17/2007	5.41	91.40	
G20M	4/17/2007	2.69	93.96	
G20S	4/17/2007	1.47	94.99	

Water Level Measurements
Wells G H
Spring 2007

Well	Date	Depth to Water (feet)	Water Level Elevation (feet above NGVD)	Comment
G21D	4/17/2007	34.26	60.77	
G21S	4/17/2007	19.68	77.87	
G22D	4/17/2007	37.11	59.07	
G22S	4/17/2007	31.80	64.52	
G23D	4/17/2007	23.40	67.74	
G23S	4/17/2007	23.32	67.62	
G24D	4/17/2007	8.69	87.89	
G24S	4/17/2007	10.80	87.83	
G25D	4/17/2007	***	***	
G25S	4/17/2007	***	***	
G26D	4/16/2007	5.17	94.99	
G26S	4/16/2007	4.25	95.99	
G27D	4/17/2007	***	***	
G27S	4/17/2007	***	***	
G28D	4/16/2007	25.71	68.20	
G28S	4/16/2007	21.98	74.93	
G29S	4/17/2007	***	***	
G2D	4/17/2007	5.42	94.33	
G2DB	4/17/2007	5.27	93.75	
G2DB2	4/17/2007	6.40	93.57	
G2M	4/17/2007	5.35	94.29	
G2S	4/17/2007	5.80	94.29	
G31D	4/17/2007	***	***	
G31S	4/17/2007	***	***	
G32S	4/17/2007	***	***	
G34D	4/17/2007	***	***	
G34S	4/17/2007	***	***	
G35D	4/17/2007	***	***	
G35DB	4/17/2007	***	***	
G35S	4/17/2007	***	***	
G36D	4/17/2007	33.65	58.36	
G36DB2	4/17/2007	35.18	56.31	
G36DBR	4/17/2007	34.03	58.22	
G36S	4/17/2007	31.83	62.90	
G3D	4/17/2007	36.45	57.11	
G3DB	4/17/2007	***	***	
G3DB2	4/17/2007	***	***	
G3DB3	4/17/2007	***	***	

Water Level Measurements
Wells G H
Spring 2007

Well	Date	Depth to Water (feet)	Water Level Elevation (feet above NGVD)	Comment
G3S	4/17/2007	27.76	66.14	
G4D	4/17/2007	***	***	
G4S	4/17/2007	***	***	
G5D	4/16/2007	7.65	88.10	
G5S	4/16/2007	8.08	88.03	
G6A	4/17/2007	***	***	
G6B	4/17/2007	***	***	
G6C	4/17/2007	***	***	
G6S	4/17/2007	***	***	
G7D	4/17/2007	***	***	
G7S	4/17/2007	***	***	
G8S	4/16/2007	4.72	97.24	
G9S	4/16/2007	3.10	94.12	
GO1D	4/16/2007	14.60	58.35	
GO1DB	4/16/2007	28.98	44.07	
GO1S	4/16/2007	13.81	59.32	
IUS1	4/16/2007	10.81	77.32	
IUS2A	4/16/2007	5.93	57.18	
IUS2B	4/16/2007	4.83	57.75	
IUS2C	4/16/2007	4.92	58.31	
IUS3A	4/16/2007	2.29	64.56	
IUS3B	4/16/2007	5.60	61.47	
IUS3C	4/16/2007	5.42	61.65	
K42D	4/16/2007	2.04	53.78	
K42M	4/16/2007	NM	NM	
K42S	4/16/2007	1.58	54.32	
S63D	4/16/2007	9.91	59.51	
S63S	4/16/2007	9.62	59.88	
S64D	4/17/2007	4.60	55.22	
S64M	4/17/2007	4.12	55.54	
S64S	4/17/2007	3.92	55.54	
S65DR	4/17/2007	23.63	56.26	
S65M	4/16/2007	19.72	56.72	
S65S	4/16/2007	19.70	56.72	
S66D	4/16/2007	12.98	57.19	
S67D	4/16/2007	**	**	
S67M	4/16/2007	14.43	68.60	
S67S	4/16/2007	5.21	77.85	
S69D	4/16/2007	16.25	59.25	

Water Level Measurements
Wells G H
Spring 2007

Well	Date	Depth to Water (feet)	Water Level Elevation (feet above NGVD)	Comment
S70D	4/16/2007	12.13	57.30	
S70M	4/16/2007	12.03	57.48	
S70S	4/16/2007	11.42	57.88	
S71D	4/16/2007	9.42	61.51	
S71S	4/16/2007	9.89	61.12	
S7R	4/16/2007	1.86	93.91	
S81D	4/17/2007	5.89	50.05	
S81M	4/17/2007	5.39	52.00	
S81S	4/17/2007	3.14	52.80	
S82	4/17/2007	7.84	50.62	
S97D	4/17/2007	3.83	47.03	
S97M	4/17/2007	4.52	46.90	
S97S	4/17/2007	3.98	48.07	
UC10-1	4/16/2007	28.33	41.27	
UC10-2	4/16/2007	28.22	41.38	
UC10-4	4/16/2007	17.00	52.60	
UC10D	4/16/2007	10.45	58.60	
UC10M	4/16/2007	9.94	59.06	
UC10S	4/16/2007	9.77	59.26	
UC11-2	4/16/2007	19.44	50.76	
UC12-2	4/16/2007	**	**	
UC12-5	4/16/2007	**	**	
UC15D	4/16/2007	29.58	40.44	
UC15S	4/16/2007	15.77	54.70	
UC16	4/16/2007	0.00	72.49	
UC17	4/16/2007	4.23	68.90	
UC18	4/16/2007	13.50	59.29	
UC19	4/16/2007	12.67	57.61	
UC19M	4/16/2007	**	**	
UC19S	4/16/2007	**	**	
UC20	4/16/2007	13.91	58.96	
UC22	4/16/2007	65.54	19.99	
UC23-1	4/16/2007	18.40	71.50	
UC23-2	4/16/2007	44.24	45.66	
UC23-3	4/16/2007	80.07	9.83	
UC23-4	4/16/2007	50.97	38.93	
UC23-5	4/16/2007	49.97	39.93	
UC24D	4/16/2007	11.96	57.45	

Water Level Measurements
Wells G H
Spring 2007

Well	Date	Depth to Water (feet)	Water Level Elevation (feet above NGVD)	Comment
UC24S	4/16/2007	11.54	57.77	
UC25	4/16/2007	9.70	62.03	
UC26D	4/16/2007	10.35	58.53	
UC26S	4/16/2007	9.33	59.53	
UC29D	4/16/2007	8.92	61.50	
UC29S	4/16/2007	NM	NM	
UC30	4/16/2007	11.69	61.78	
UC31D	4/16/2007	12.02	57.01	
UC31M	4/16/2007	NM	NM	
UC31S	4/16/2007	11.23	57.92	
UC32	4/16/2007	4.10	68.52	
UC33	4/16/2007	7.23	65.31	
UC34	4/16/2007	*	*	Dry at 5.47 feet below mp
UC35	4/16/2007	*	*	Dry at 7.22 feet below mp
UC36	4/16/2007	*	*	Dry at 5.8 feet below mp
UC4	4/16/2007	4.35	68.47	
UC5	4/16/2007	7.42	64.88	
UC6	4/16/2007	10.45	57.45	
UC6S	4/16/2007	**	**	
UC7A-1	4/16/2007	32.55	36.04	
UC7A-2	4/16/2007	29.95	38.64	
UC7A-3	4/16/2007	24.53	44.06	
UC7A-4	4/16/2007	12.98	55.61	
UC7A-5	4/16/2007	1.85	66.74	
UC8	4/16/2007	3.50	70.37	
UG1-1	4/16/2007	33.24	40.11	
UG1-2	4/16/2007	23.25	50.10	
UG1-4	4/16/2007	23.02	50.33	
UG1-5	4/16/2007	36.32	37.03	
UG1-7	4/16/2007	31.86	41.49	

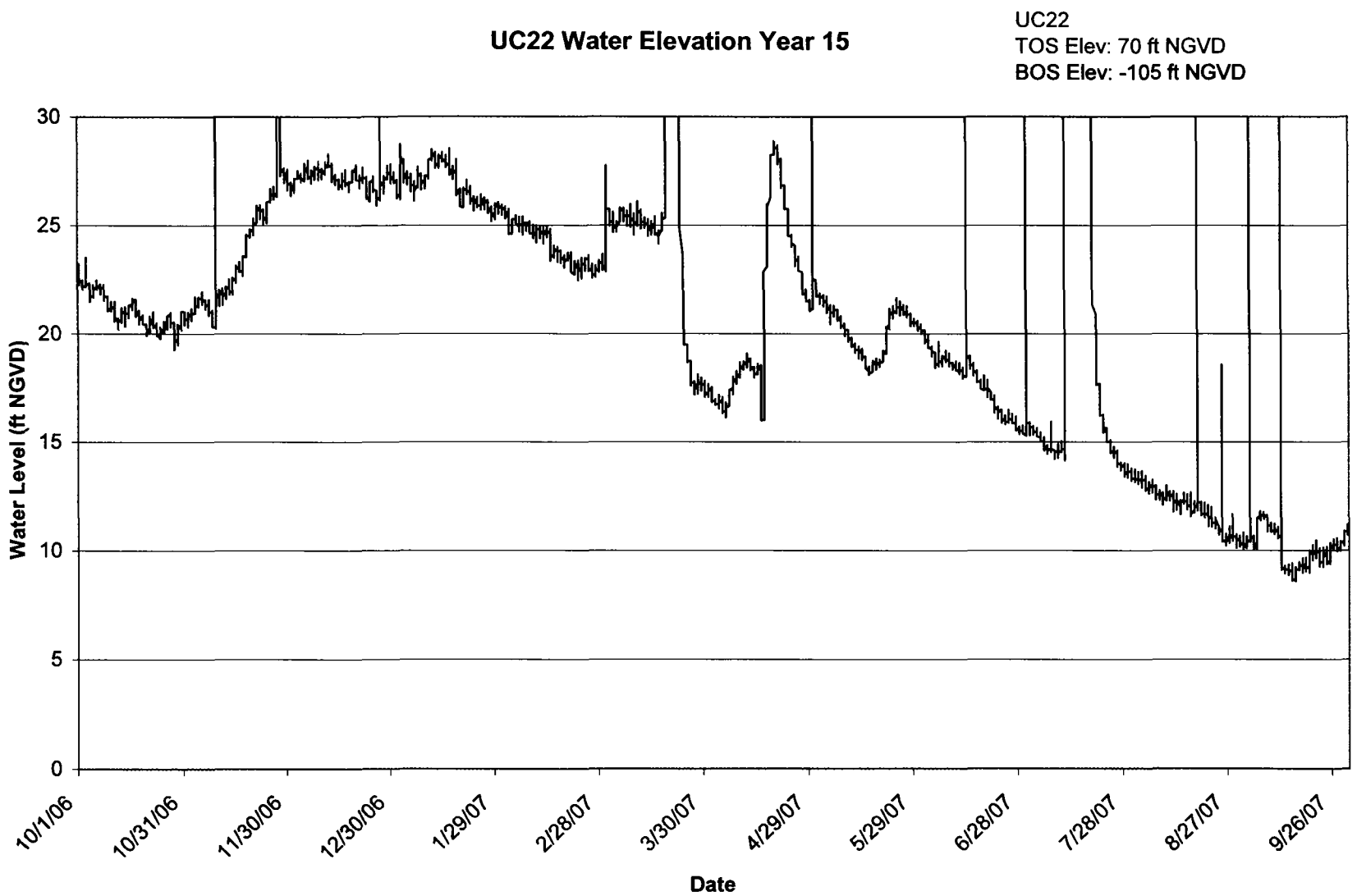
Notes:

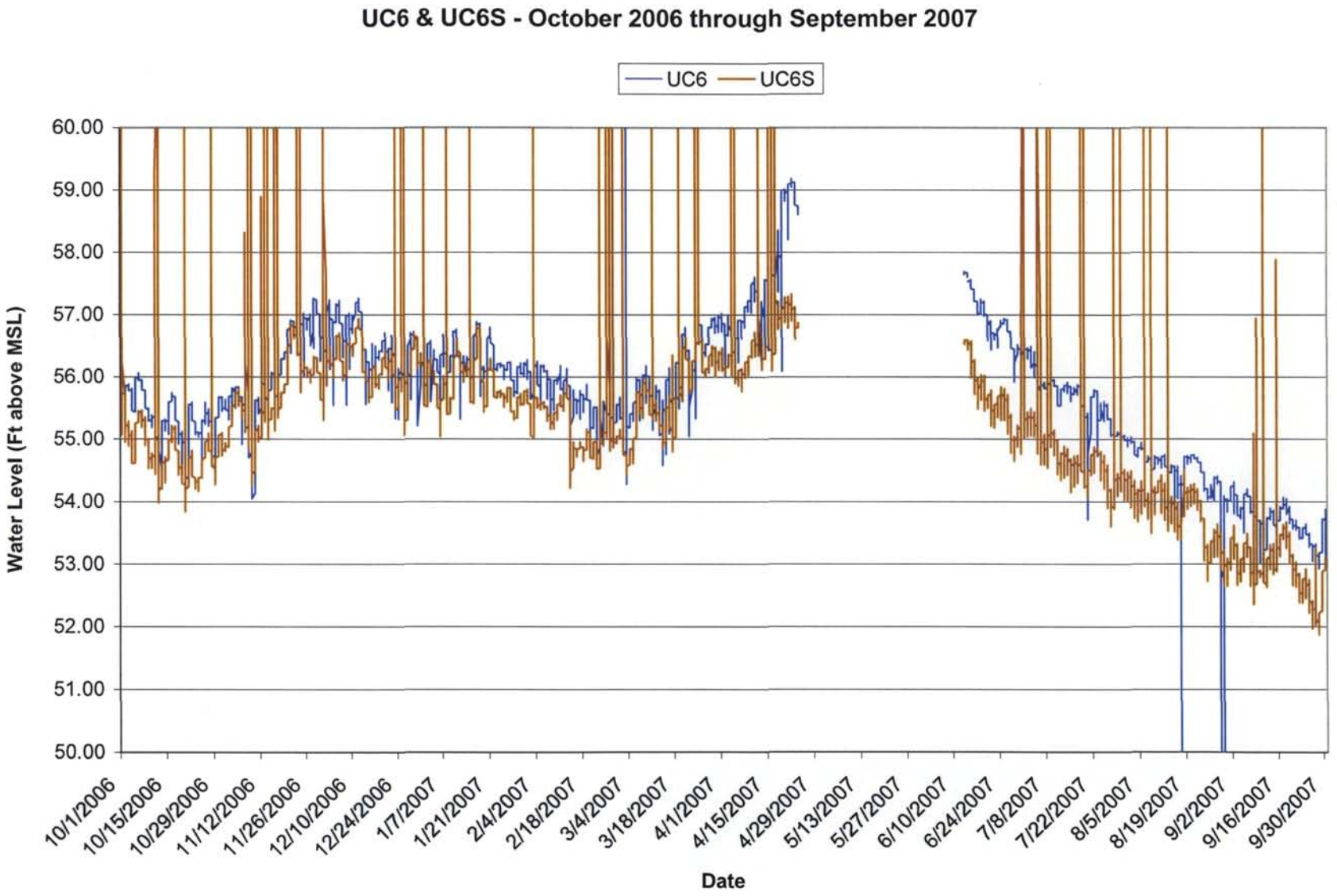
* Indicates well was dry
** Indicates well was flooded
*** Indicates well was decommissioned
NM Indicates well was not measured

Appendix C

Data Logger Hydrographs

October 2006 – September 2007


UC22 Water Elevation Year 15
UC22
TOS Elev: 70 ft NGVD
BOS Elev: -105 ft NGVD
Water Level (ft NGVD)
30
25
20
15
10
5
0
10/1/06
10/31/06
11/30/06
12/30/06
1/29/07
2/28/07
3/30/07
4/29/07
5/29/07
6/28/07
7/28/07
8/27/07
9/26/07
Date


UC6 & UC6S - October 2006 through September 2007
UC6
UC6S
Water Level (Ft above MSL)
60.00
59.00
58.00
57.00
56.00
55.00
54.00
53.00
52.00
51.00
50.00
10/1/2006
10/15/2006
10/29/2006
11/12/2006
11/26/2006
12/10/2006
12/24/2006
1/7/2007
1/21/2007
2/4/2007
2/18/2007
3/4/2007
3/18/2007
4/1/2007
4/15/2007
4/29/2007
5/13/2007
5/27/2007
6/10/2007
6/24/2007
7/8/2007
7/22/2007
8/5/2007
8/19/2007
9/2/2007
9/16/2007
9/30/2007
Date

Appendix D

April 2007 Groundwater Quality Data

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **GO1DB** Sample Name: GO1BA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 UJ	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	4	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	8	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 J	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **S70D** Sample Name: S70DA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1 J	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **S71D** Sample Name: S71DA

1,1,1-Trichloroethane	1 J	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	45	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	0.5 J	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected In Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **S71S** Sample Name: S71SA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	26	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **S81D** Sample Name: S81DA

1,1,1-Trichloroethane	1 J	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 UJ	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 UJ	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	0.7 J	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	92	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 UJ	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	4	ug/L
Vinyl chloride	2 UJ	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **S81D** Sample Name: S81DB

1,1,1-Trichloroethane	1 J	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	0.8 J	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 J	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	0.8 J	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	86	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	4	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **S81M** Sample Name: S81MA

1,1,1-Trichloroethane	5	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	2	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	1 J	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	0.6 J	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	88	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	3	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **S81S** Sample Name: S81SA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	7	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	8	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **UC10-1** Sample Name: U101A

1,1,1-Trichloroethane	1 J	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	2 J	ug/L
1,1-Dichloroethene	0.9 J	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	390	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	390 E	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	260	ug/L
Toluene	50	ug/L
Trans-1,2-dichloroethene	2	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	110	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10-2** Sample Name: U102A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	0.4 J	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	120	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	120	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	61	ug/L
Toluene	20	ug/L
Trans-1,2-dichloroethene	0.8 J	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	25	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10-3** Sample Name: U103A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 UJ	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	160	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	160	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	30	ug/L
Toluene	18	ug/L
Trans-1,2-dichloroethene	0.7 J	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	15	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10-4** Sample Name: U104A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 UJ	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	110	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	110	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	52 J	ug/L
Toluene	19	ug/L
Trans-1,2-dichloroethene	0.8 J	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	18	ug/L
Vinyl chloride	2 UJ	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10-4** Sample Name: U104B

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	39	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	39	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	100 J	ug/L
Toluene	21	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	22	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10-5** Sample Name: U105A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	180	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	180	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	31	ug/L
Toluene	19	ug/L
Trans-1,2-dichloroethene	0.9 J	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	14	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10-6** Sample Name: U106A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	56	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	56	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	11	ug/L
Toluene	5	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	3	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10D** Sample Name: U10DA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1 U	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/17/2007
Sample Location: **UC10M** Sample Name: U10MA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1 U	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **UC10S** Sample Name: U10SA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1 U	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **UC11-2** Sample Name: U112A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 J	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	250	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	6	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	240 E	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	56	ug/L
Toluene	11	ug/L
Trans-1,2-dichloroethene	11	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	44	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UC6** Sample Name: XUC6A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 U	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 J	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	29	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	2	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	26	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	7	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/18/2007
Sample Location: **UC6S** Sample Name: UC6SA

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 UJ	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	2 U	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	1 U	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	3	ug/L
Toluene	1 U	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	1 U	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
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WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UC7-1** Sample Name: UC71A

1,1,1-Trichloroethane	26	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	6 J	ug/L
1,1-Dichloroethene	6	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	11	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 J	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	11	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	2000	ug/L
Toluene	45	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	110	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UC7-2** Sample Name: UC72A

1,1,1-Trichloroethane	40	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	15	ug/L
1,1-Dichloroethene	6	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	13	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	0.4 J	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	12	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	0.5 J	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	2600	ug/L
Toluene	35	ug/L
Trans-1,2-dichloroethene	0.8 J	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	340	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UC7-3** Sample Name: UC73A

1,1,1-Trichloroethane	33	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	9 J	ug/L
1,1-Dichloroethene	9	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	60	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 J	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	59	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1300	ug/L
Toluene	19	ug/L
Trans-1,2-dichloroethene	0.6 J	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	200	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UC7-5** Sample Name: UC75A

1,1,1-Trichloroethane	5	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	0.7 J	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	30	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	13	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	30	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	490	ug/L
Toluene	4	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	24	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UC7-4** Sample Name: UC74A

1,1,1-Trichloroethane	32	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	6 J	ug/L
1,1-Dichloroethene	4	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	35	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	5 U	ug/L
2-Hexanone	5 U	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	5 U	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	35	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1000	ug/L
Toluene	10	ug/L
Trans-1,2-dichloroethene	1 U	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	61	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

WATER QUALITY SUMMARY REPORT
WELLS G & H SITE, April 2007

Sample Date: 4/19/2007
Sample Location: **UG1-4** Sample Name: UG14A

1,1,1-Trichloroethane	1 U	ug/L
1,1,2,2-Tetrachloroethane	1 U	ug/L
1,1,2-Trichloroethane	1 U	ug/L
1,1-Dichloroethane	1 J	ug/L
1,1-Dichloroethene	1 U	ug/L
1,2-Dichloroethane	1 U	ug/L
1,2-Dichloroethylene (total)	160	ug/L
1,2-Dichloropropane	1 U	ug/L
2-Butanone	330	ug/L
2-Hexanone	2 J	ug/L
4-Methyl-2-Pentanone	5 U	ug/L
Acetone	210	ug/L
Benzene	1 U	ug/L
Bromodichloromethane	1 U	ug/L
Bromoform	1 U	ug/L
Bromomethane	2 U	ug/L
Carbon disulfide	1 U	ug/L
Carbon tetrachloride	1 U	ug/L
Chlorobenzene	1 U	ug/L
Chloroethane	2 U	ug/L
Chloroform	1 U	ug/L
Chloromethane	2 U	ug/L
Cis-1,2-Dichloroethene	160	ug/L
Cis-1,3-Dichloropropene	1 U	ug/L
Dibromochloromethane	1 U	ug/L
Ethylbenzene	1 U	ug/L
Meta- & Para-Xylenes	2 U	ug/L
Methylene chloride	5 U	ug/L
Ortho-Xylene	1 U	ug/L
Styrene	1 U	ug/L
Tetrachloroethene	1 U	ug/L
Toluene	0.5 J	ug/L
Trans-1,2-dichloroethene	4	ug/L
Trans-1,3-Dichloropropene	1 U	ug/L
Trichloroethene	4	ug/L
Vinyl chloride	2 U	ug/L
Xylenes (total)	3 U	ug/L

NOTES: U - Compound not detected at limit indicated.
J - Estimated Value.
B - Compound Detected in Blank.
E - Compound Concentration Exceeded Calibration Range of the Instrument

Appendix E

Annual Maintenance Report &
Annual Inspection Report

Annual Maintenance Check List

UniFirst Ground Water Treatment System
Woburn, Massachusetts

I. Diaphragm Check Valve

Manufactured by CLA-VAL CO., Model 81-01, 2" angle style

Inspect the diaphragm, disc and seat o-ring carefully for signs of wear, corrosion or other abnormal condition (refer to manufacturer's literature). Replace these parts unless the inspection indicates they are free of wear or other abnormal condition.

Date Inspected 09/11/07

Inspector Russell Cahoon

Mass. Plumber's License No: 10129

Parts Replaced

Diaphragm	✓ Yes	○ No
Disc	✓ Yes	○ No
Seat O-ring	✓ Yes	○ No

II. Pressure Reducing Valve

Manufactured by WATTS REGULATOR, Model 223LP, 1½"

Inspect the diaphragm, seat, disc and gaskets carefully for signs of wear, corrosion or other abnormal condition (refer to manufacturer's literature). Replace these parts unless the inspection indicates they are free of wear or other abnormal condition.

Date Inspected 9-11-07

Inspector Russell Cahoon

Mass. Plumber's License No: 10129

Parts Replaced

Diaphragm	✓ Yes	○ No
Disc	✓ Yes	○ No
Seat	✓ Yes	○ No
Seat Gasket	✓ Yes	○ No
Bottom Plug Gasket	✓ Yes	○ No
Disc Screw	✓ Yes	○ No

If additional maintenance activities are performed, list them on a separate page and include the following information:

Date, component, description of problem, description of maintenance performed and remedial recommendations (if appropriate).

Annual Inspection Report

UniFirst Ground Water Treatment System
Woburn, Massachusetts

Date 09/11/07
Operator TMC

I. UC22 Well Head

Remove any debris around the well head.

Condition of well cap good
Signs of wear or abuse ○ Yes ⊗ No Describe
Condition of pressure transducer junction box good
Condition of desiccant (replace if pink) good

II. Influent Pipe Corridor

Evidence of settlement ○ Yes ⊗ No
Evidence of leakage ○ Yes ⊗ No

III. Discharge Pipe Corridor

Evidence of settlement ○ Yes ⊗ No
Evidence of leakage ○ Yes ⊗ No

Open and inspect the two cleanouts located at 90° bends on the discharge line.
Remove valve box cover and 4" threaded plug.

Condition of 1st cleanout (outside treatment room)
Condition of 2nd cleanout (@NW corner of site)

IV. Discharge Outfall at the Aberjona River

Describe conditions not observed

V. Treatment System Piping and Valving

Inspect all piping, fittings and valving for leakage and signs of rust. With the treatment system off, exercise all valves through their complete range of operation and restore to their original position. Complete the following table to assure that every valve is exercised. Indicate the sequence of operation: Found Open - Closed - Left Open (OCO) or Found Closed - Opened - Left Closed (COC). Inspect and indicate the condition of each valve tag, replace as needed and so note on the table.

Valve Inspection & Exercise Record

Valve	Exercise Sequence	ID Tag Condition	Valve	Exercise Sequence	ID Tag Condition
B1	Auto	✓	B7	COC	✓
B2	OCO	✓	B10	NA	✓
B3	OCO	✓	B11	COC	✓
B4	OCO	✓	B12	COC	✓
B5	OCO	✓	B13	OCO	✓
B6	COC	✓	B14	OCO	✓

Valve Inspection & Exercise Record

Valve	Exercise Sequence	ID Tag Condition	Valve	Exercise Sequence	ID Tag Condition
B15	C O C	R	B24	COC	✓
B16	O C O	✓	B25	C O C	✓
B31	O C O	Replaced	B26	O C O	✓
B32	O C O	✓	B27	C O C	✓
B33	C O C	✓	B27A	O C O	✓
B34	C O C	✓	B28	C O C	✓
B35	C O C	✓	B29	O C O	✓
B36	O C O	Replaced	B30	O C O	✓
B37	O C O	Replaced	G-1	O C O	✓
B38	O C O	Replaced	G-2	C O C	✓
B39	O C O	Replaced	G-3	C O C	✓
B106	C O C	✓	G-6	O C O	✓
B17	C O C	✓	G-7	O C O	✓
B19	C O C	✓	F1	O C O	✓
B20	C O C	✓	F2	O C O	✓
B21	O C O	✓	F3	C O C	✓
B22	C O C	✓	F4	C O C	✓
B23	C O C	✓	F5	C O C	✓

VI. Treatment System Tankage

Visually inspect the tankage associated with the treatment system. This includes: the multi-media filter; the carbon tanks; the backwash settling tank; and the discharge tank; Inspect the tanks for general condition, at every weld or seam and at each pipe connection.

Multi-Media Filter

General Condition: good

Condition of Welds: good

Condition at pipe penetrations: good effluent piping rusting

Cartridge Filter

General Condition: good

Condition of Welds: good

Carbon Tanks
General Condition excellent
Condition at pipe penetrations good

Backwash Settling Tank
General Condition good
Condition at pipe penetrations good

Discharge Tank
General Condition good
Condition at pipe penetrations good

VII. Backwash Multi-media Filter

Backwash the multi-media filter following the procedure in Section 3.4.1 of the O&M Manual. Backwash to be performed during the Annual Inspection, unless previously accomplished during the year of operation.

Backwash Performed: 03/15/07 (last done) Duration (minutes): _____

VIII. Cartridge Filter

Open cartridge and remove filter element.
Clean the filter element per the manufacturer's recommendations. replaced filter
Collect the rinsate in a drum designated for this purposed.

IX. Floor Sump Pump (P7)

Inspect and test the floor sump.
General Condition good
Pump Operation good
Clean suction screen on bottom of pump.

X. Hydrogen Peroxide Containment Structure

Inspect the containment structure and lining. Remove any debris that may have accumulated.
General Condition good
Liner Condition good

XI. Floor to Wall Seal and Containment Curbs

Inspect the condition of the floor to wall seal along the south and west walls of the treatment room. Check the seal for tears, abrasions and continuity with the walls and floor. Inspect the containment curbing at the doors to the treatment room and those adjacent to the discharge tank. Check to assure the curbing is bonded to the concrete slab.

Floor to Wall Seal general condition good
Containment curbs general condition good

XII. Emergency Eyewash/Shower

Test and inspect the emergency eyewash and shower.

Eyewash - tested ☑ Yes ○ No General condition _____
Shower - tested ☑ Yes ○ No General condition _____

XIII. Pressure Relief Valve and Flow Switch

Test and inspect the pressure relief valve (system must be operating) and the flow switch.

Test pressure relief valve and note response:

Well Pump (P1) shut down? ✓ Yes ○ No

Annunciator #2 Lit? ✓ Yes ○ No

Dial Out Routine Activated? ✓ Yes ○ No

Relief value and flow switch general condition good

XIV. High Level Electrodes - Backwash Tank & Floor Sump

Test and inspect the high level electrode assemblies for the backwash settling tank and floor sump.
Disconnect the modem telephone line to avoid alarm callouts.
Simulate a high level condition by immersing the sensors in a container of water. Test the level sensors with the well pump operating and note the responses.

Backwash Settling Tank

Test high level electrodes and note response:

Well Pump (P1) shut down? ✓ Yes ○ No

Annunciator #1 Lit? ✓ Yes ○ No

General condition of the electrode assembly good

Floor Sump

Test high level electrodes and note response:

Well Pump (P1) shut down? ✓ Yes ○ No

Annunciator #2 Lit? ✓ Yes ○ No

General condition of the electrode assembly good

Remember to reconnect the modem telephone line.

XV. Ventilation System

Test the operation of and inspect the vent fan and make-up louvers.

Vent Fan

Test Operation ✓ General Condition good

Make-up Air Louvers

Test Operation ✓ General Condition good

XVI. Data Logger

Open the datalogger enclosure and replace the desiccant.

XVII. Recommendations

Record below any recommendations to the treatment system operation or maintenance.

Effluent piping from RMF needs to be replaced (DONE 10/17/2007).

Appendix F

Treatment Plant Monitoring Data

Influent (S1)
Carbon #1 Effluent (S5C1)
Carbon #2 Effluent (S5C2)
Final Effluent (S6 & S7)

Sample Location S1, influent from UC22
UniFirst Ground Water Treatment Facility
Woburn, Massachusetts

Method 8260

	Laboratory Results (µg/l)				
Date	**1,1,1-TCA**	**1,1-DCE**	**1,2-DCE**	**PCE**	**TCE**
07-Nov-06	2		2	250	15
02-Jan-07	2		2	320	14
06-Mar-07	2		3	240	15
01-May-07	1		1J	320	9
10-Jul-07	2		2	240	19
04-Sep-07	1J		2J	130	15

Sample Location S5C1, effluent from 1st carbon tank
UniFirst Ground Water Treatment Facility
Woburn, Massachusetts

Method 8260B

	Laboratory Results (µg/l)				
Date	**1,1,1-TCA**	**1,1-DCE**	**1,2-DCE**	**PCE**	**TCE**
03-Oct-06	3	3		1	2
07-Nov-06	3		4	10	6
05-Dec-06	3		2	26	12
02-Jan-07	2		3	53	13
06-Feb-07				93	15
06-Mar-07	2		3	110	18
03-Apr-07	3		4	0.6	
02-May-07	3		3	21	2
05-Jun-07	3		3	56	5
10-Jul-07	3		3	100	11
07-Aug-07	2		3	100	12
04-Sep-07	3		3	0	0

Sample Location S5C2, effluent from 2nd carbon tank
UniFirst Ground Water Treatment Facility
Woburn, Massachusetts

Method 8260B

Laboratory Results (µg/l)

Date	1,1,1-TCA	1,1-DCE	1,2-DCE	PCE	TCE
03-Oct-06	3		2		
07-Nov-06	3		3		
05-Dec-06	3		2		
02-Jan-07	3		4		
06-Feb-07	3		4		
06-Mar-07	4		5		
03-Apr-07					
01-May-07					
05-Jun-07	1		1J		
10-Jul-07	2		3		
07-Aug-07	2		4		
25-Aug-07					
04-Sep-07	2		1J		

Sample Location S6, final effluent
UniFirst Ground Water Treatment Facility
Woburn, Massachusetts

EPA Method 524.2

	Laboratory Results (µg/l)					
Date	**1,1,1-TCA**	**1,1-DCE**	**1,2-DCE**	**PCE**	**TCE**	**Lead**
Limit	**None**	**7**	**70**	**5**	**5**	**10.2**
03-Oct-06						<1.8
07-Nov-06						<1.8
05-Dec-06	0.23J					3.3B
05-Dec-06 S7	0.21J					
02-Jan-07	1.0		0.88J			4.6B
06-Feb-07	1.4		1.5			2.9B
06-Mar-07	2.1		2.4			0.97B
03-Apr-07						0.97B
01-May-07						0.91U
05-Jun-07						1.0B
05-Jun-07 S7						
10-Jul-07						1.8B
07-Aug-07	0.52		0.39J			5.5
04-Sep-07						5.7

Appendix G

Final Effluent TCL/TAL Analytical Report

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Unifirst Corporatio
Project: Woburn GW Treatment
PO NO:
Sample Date: 05/02/07
Received Date: 05/03/07
Extraction Date: 05/04/07
Analysis Date: 10-MAY-2007 21:06
Report Date: 05/21/2007
Matrix: WATER
% Solids: NA

Lab ID: SA2060-3
Client ID: S6
SDG: SA2060
Extracted by: KM
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG38541
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
108-95-2	Phenol	U	10	1.0	10	10	8
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	4
95-57-8	2-Chlorophenol	U	10	1.0	10	10	8
541-73-1	1,3-Dichlorobenzene	U	10	1.0	10	10	3
106-46-7	1,4-Dichlorobenzene	U	10	1.0	10	10	3
95-50-1	1,2-Dichlorobenzene	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	8
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	3
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	4
106-44-5	3&4-Methylphenol	U	10	1.0	10	10	8
67-72-1	Hexachloroethane	U	10	1.0	10	10	3
98-95-3	Nitrobenzene	U	10	1.0	10	10	2
78-59-1	Isophorone	U	10	1.0	10	10	3
88-75-5	2-Nitrophenol	U	10	1.0	10	10	7
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	7
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	3
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	7
120-82-1	1,2,4-Trichlorobenzene	U	10	1.0	10	10	2
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	4
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	9
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	4
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	2
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	6
95-95-4	2,4,5-Trichlorophenol	U	25	1.0	25	25	6
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	2
88-74-4	2-Nitroaniline	U	25	1.0	25	25	3
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	4
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	4
208-96-8	Acenaphthylene	U	10	1.0	10	10	3
99-09-2	3-Nitroaniline	U	25	1.0	25	25	4
83-32-9	Acenaphthene	U	10	1.0	10	10	3
51-28-5	2,4-Dinitrophenol	U	25	1.0	25	25	22
132-64-9	Dibenzofuran	U	10	1.0	10	10	3
100-02-7	4-Nitrophenol	U	25	1.0	25	25	15
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	4
84-66-2	Diethylphthalate	U	10	1.0	10	10	3
86-73-7	Fluorene	U	10	1.0	10	10	3
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	3
100-01-6	4-Nitroaniline	U	25	1.0	25	25	5
534-52-1	4,6-Dinitro-2-Methylphenol	U	25	1.0	25	25	11
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	5

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Unifirst Corporatio
Project: Woburn GW Treatment
PO NO:
Sample Date: 05/02/07
Received Date: 05/03/07
Extraction Date: 05/04/07
Analysis Date: 10-MAY-2007 21:06
Report Date: 05/21/2007
Matrix: WATER
% Solids: NA

Lab ID: SA2060-3
Client ID: S6
SDG: SA2060
Extracted by: KM
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG38541
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	3
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	25	1.0	25	25	16
85-01-8	Phenanthrene	U	10	1.0	10	10	3
120-12-7	Anthracene	U	10	1.0	10	10	3
86-74-8	Carbazole	U	10	1.0	10	10	4
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	7
206-44-0	Fluoranthene	U	10	1.0	10	10	8
129-00-0	Pyrene	U	10	1.0	10	10	6
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	6
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	4
218-01-9	Chrysene	U	10	1.0	10	10	3
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	8
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	5
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	3
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	4
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	3
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	7
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	7
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	8
367-12-4	2-Fluorophenol		42%				
13127-88-3	Phenol-D6		28%				
4165-60-0	Nitrobenzene-D5		64%				
321-60-8	2-Fluorobiphenyl		67%				
118-79-6	2,4,6-Tribromophenol		68%				
1718-51-0	Terphenyl-D14		100%				

Report of Analytical Results

Client: Unifirst Corporatio
Project: Woburn GW Treatment
PO No:
Sample Date: 05/02/07
Received Date: 05/03/07
Extraction Date: 05/04/07
Analysis Date: 12-MAY-2007 00:17
Report Date: 05/14/2007
Matrix: WATER
% Solids: NA

Lab ID: SA2060-3
Client ID: S6
SDG: SA2060
Extracted by: KF
Extraction Method: SW846 3510
Analyst: SJC
Analysis Method: SW846 8081A
Lab Prep Batch: WG38564
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.050	1.0	0.050	0.050	0.026
58-89-9	gamma BHC	U	0.050	1.0	0.050	0.050	0.031
319-85-7	beta-BHC	U	0.050	1.0	0.050	0.050	0.036
319-86-8	delta-BHC	U	0.050	1.0	0.050	0.050	0.031
76-44-8	Heptachlor	U	0.050	1.0	0.050	0.050	0.028
309-00-2	Aldrin	U	0.050	1.0	0.050	0.050	0.030
1024-57-3	Heptachlor Epoxide	U	0.050	1.0	0.050	0.050	0.033
5103-74-2	gamma-Chlordane	U	0.050	1.0	0.050	0.050	0.035
5103-71-9	alpha-Chlordane	U	0.050	1.0	0.050	0.050	0.033
72-55-9	4,4'-DDE	U	0.10	1.0	0.10	0.10	0.036
959-98-8	Endosulfan I	U	0.050	1.0	0.050	0.050	0.019
60-57-1	Dieldrin	U	0.10	1.0	0.10	0.10	0.032
72-20-8	Endrin	U	0.10	1.0	0.10	0.10	0.091
72-54-8	4,4'-DDD	U	0.10	1.0	0.10	0.10	0.034
33213-65-9	Endosulfan II	U	0.10	1.0	0.10	0.10	0.021
50-29-3	4,4'-DDT	U	0.10	1.0	0.10	0.10	0.037
7421-36-3	Endrin Aldehyde	U	0.10	1.0	0.10	0.10	0.048
72-43-5	Methoxychlor	U	0.50	1.0	0.50	0.50	0.32
1031-07-8	Endosulfan sulfate	U	0.10	1.0	0.10	0.10	0.037
53494-70-5	Endrin Ketone	U	0.10	1.0	0.10	0.10	0.090
8001-35-2	Toxaphene	U	1.0	1.0	1.0	1.0	0.64
877-09-8	*Tetrachloro-m-Xylene*		*119%				
2051-24-3	Decachlorobiphenyl		*111%				

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** S6

Matrix: WATER **SDG Name:** SA2060

Percent Solids: 0.00 **Lab Sample ID:** SA2060-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	58.3	B		P	1	300	19.00
7440-36-0	ANTIMONY, TOTAL	0.87	U		P	1	8.0	0.87
7440-38-2	ARSENIC, TOTAL	1.5	B		P	1	8.0	0.83
7440-39-3	BARIUM, TOTAL	37.4			P	1	5.0	0.45
7440-41-7	BERYLLIUM, TOTAL	0.12	U		P	1	5.0	0.12
7440-43-9	CADMIUM, TOTAL	0.10	U		P	1	10	0.10
7440-70-2	CALCIUM, TOTAL	177000			P	1	50	7.70
7440-47-3	CHROMIUM, TOTAL	0.72	B		P	1	15	0.28
7440-48-4	COBALT, TOTAL	0.26	U		P	1	30	0.26
7440-50-8	COPPER, TOTAL	1.7	B		P	1	25	0.22
7439-89-6	IRON, TOTAL	20.3	B		P	1	100	5.20
7439-92-1	LEAD, TOTAL	0.91	U		P	1	5.0	0.91
7439-95-4	MAGNESIUM, TOTAL	26800			P	1	50	4.90
7439-96-5	MANGANESE, TOTAL	0.57	U		P	1	5.0	0.57
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	0.41	U		P	1	40	0.41
7440-09-7	POTASSIUM, TOTAL	3720			P	1	1000	86.00
7782-49-2	SELENIUM, TOTAL	1.50	U		P	1	10	1.50
7440-22-4	SILVER, TOTAL	0.46	U		P	1	15	0.46
7440-23-5	SODIUM, TOTAL	258000			P	1	1000	13.00
7440-28-0	THALLIUM, TOTAL	1.6	B		P	1	15	0.71
7440-62-2	VANADIUM, TOTAL	0.56	B		P	1	25	0.29
7440-66-6	ZINC, TOTAL	5.9	B		P	1	25	0.23

Bottle ID: E

Comments:

Katahdin
ANALYTICAL SERVICES

nelac
Cert No E87604

Report of Analytical Results

Client: Stephen Aquilino
Unifirst Corporation
68 Jonspin Road
Wilmington,MA 01887

Lab Sample ID: SA2060-3
Report Date: 14-MAY-07
Client PO:
Project: Woburn GW Treatment
SDG: SA2060

Sample Description	Matrix	Date Sampled	Date Received
S6	AQ	02-MAY-07	03-MAY-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Cyanide	U10. ug/L	10	EPA M335.3	WG38654	08-MAY-07 10:04:48	SM4500CN-C	07-MAY-07	CP	

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Unifirst Corporatio
Project: Woburn GW Treatment
PO No:
Sample Date: 05/02/07
Received Date: 05/03/07
Extraction Date: 05/04/07
Analysis Date: 22-MAY-2007 14:48
Report Date: 05/23/2007
Matrix: WATER
% Solids: NA

Lab ID: SA2060-3
Client ID: S6
SDG: SA2060
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG38565
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.50	1.0	0.50	0.50	0.38
11104-28-2	Aroclor-1221	U	0.50	1.0	0.50	0.50	0.16
11141-16-5	Aroclor-1232	U	0.50	1.0	0.50	0.50	0.27
53469-21-9	Aroclor-1242	U	0.50	1.0	0.50	0.50	0.20
12672-29-6	Aroclor-1248	U	0.50	1.0	0.50	0.50	0.18
11097-69-1	Aroclor-1254	U	0.50	1.0	0.50	0.50	0.24
11096-82-5	Aroclor-1260	U	0.50	1.0	0.50	0.50	0.26
877-09-8	Tetrachloro-m-xylene		84%				
2051-24-3	Decachlorobiphenyl		*105%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Unifirst Corporatio
Project: Woburn GW Treatment
PO No:
Sample Date: 05/02/07
Received Date: 05/03/07
Extraction Date:
Analysis Date: 15-MAY-2007 16:41
Report Date: 05/23/2007
Matrix: WATER
% Solids: NA

Lab ID: SA2060-3RA
Client ID: S6
SDG: SA2060
Extracted by:
Extraction Method: EPA 524.2
Analyst: DMF
Analysis Method: EPA 524.2
Lab Prep Batch: WG38953
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	1.0	1.0	1.0	1.0	0.22
74-87-3	Chloromethane	U	1.0	1.0	1.0	1.0	0.13
75-01-4	Vinyl chloride	U	1.0	1.0	1.0	1.0	0.11
74-83-9	Bromomethane	U	1.0	1.0	1.0	1.0	0.15
75-00-3	Chloroethane	U	1.0	1.0	1.0	1.0	0.14
75-69-4	Trichlorofluoromethane	U	1.0	1.0	1.0	1.0	0.090
75-35-4	1,1-Dichloroethene	U	0.50	1.0	0.50	0.50	0.21
75-09-2	Methylene Chloride	BJ	0.70	1.0	2.5	2.5	0.43
156-60-5	trans-1,2-Dichloroethene	U	0.50	1.0	0.50	0.50	0.15
75-34-3	1,1-Dichloroethane	U	0.50	1.0	0.50	0.50	0.20
156-59-2	cis-1,2-Dichloroethene	U	0.50	1.0	0.50	0.50	0.21
540-59-0	1,2-Dichloroethylene (total)	U	1.0	1.0	1.0	1.0	0.36
594-20-7	2,2-Dichloropropane	U	0.50	1.0	0.50	0.50	0.16
67-66-3	Chloroform	U	0.50	1.0	0.50	0.50	0.21
74-97-5	Bromochloromethane	U	0.50	1.0	0.50	0.50	0.17
71-55-6	1,1,1-Trichloroethane	U	0.50	1.0	0.50	0.50	0.17
107-06-2	1,2-Dichloroethane	U	0.50	1.0	0.50	0.50	0.21
563-58-6	1,1-Dichloropropene	U	0.50	1.0	0.50	0.50	0.22
56-23-5	Carbon Tetrachloride	U	0.50	1.0	0.50	0.50	0.15
71-43-2	Benzene	U	0.50	1.0	0.50	0.50	0.20
78-87-5	1,2-Dichloropropane	U	0.50	1.0	0.50	0.50	0.30
79-01-6	Trichloroethene	U	0.50	1.0	0.50	0.50	0.15
74-95-3	Dibromomethane	U	0.50	1.0	0.50	0.50	0.20
75-27-4	Bromodichloromethane	U	0.50	1.0	0.50	0.50	0.18
10061-01-5	cis-1,3-dichloropropene	U	0.50	1.0	0.50	0.50	0.20
108-88-3	Toluene	U	0.50	1.0	0.50	0.50	0.22
10061-02-6	trans-1,3-Dichloropropene	U	0.50	1.0	0.50	0.50	0.26
79-00-5	1,1,2-Trichloroethane	U	0.50	1.0	0.50	0.50	0.26
142-28-9	1,3-Dichloropropane	U	0.50	1.0	0.50	0.50	0.27
124-48-1	Dibromochloromethane	U	0.50	1.0	0.50	0.50	0.21
127-18-4	Tetrachloroethene	U	0.50	1.0	0.50	0.50	0.17
106-93-4	1,2-Dibromoethane	U	0.50	1.0	0.50	0.50	0.28
108-90-7	Chlorobenzene	U	0.50	1.0	0.50	0.50	0.24
630-20-6	1,1,1,2-Tetrachloroethane	U	0.50	1.0	0.50	0.50	0.17
100-41-4	Ethylbenzene	U	0.50	1.0	0.50	0.50	0.24
	m+p-Xylenes	U	1.0	1.0	1.0	1.0	0.62
75-25-2	Bromoform	U	0.50	1.0	0.50	0.50	0.23
95-47-6	o-Xylene	U	0.50	1.0	0.50	0.50	0.25
1330-20-7	Xylenes (total)	U	1.5	1.0	1.5	1.5	0.85
100-42-5	Styrene	U	0.50	1.0	0.50	0.50	0.27
79-34-5	1,1,2,2-Tetrachloroethane	U	0.50	1.0	0.50	0.50	0.23
96-18-4	1,2,3-Trichloropropane	U	0.50	1.0	0.50	0.50	0.31
98-82-8	Isopropylbenzene	U	0.50	1.0	0.50	0.50	0.25

KATAHDIN ANALYTICAL SERVICES
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Sample Date: 05/02/07
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Analysis Date: 15-MAY-2007 16:41
Report Date: 05/23/2007
Matrix: WATER
% Solids: NA

Lab ID: SA2060-3RA
Client ID: S6
SDG: SA2060
Extracted by:
Extraction Method: EPA 524.2
Analyst: DMF
Analysis Method: EPA 524.2
Lab Prep Batch: WG38953
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
108-86-1	Bromobenzene	U	0.50	1.0	0.50	0.50	0.21
95-49-8	2-Chlorotoluene	U	0.50	1.0	0.50	0.50	0.25
103-65-1	N-Propylbenzene	U	0.50	1.0	0.50	0.50	0.27
106-43-4	4-Chlorotoluene	U	0.50	1.0	0.50	0.50	0.30
108-67-8	1,3,5-Trimethylbenzene	U	0.50	1.0	0.50	0.50	0.21
98-06-6	tert-Butylbenzene	U	0.50	1.0	0.50	0.50	0.25
120-82-1	1,2,4-Trichlorobenzene	U	0.50	1.0	0.50	0.50	0.23
135-98-8	sec-Butylbenzene	U	0.50	1.0	0.50	0.50	0.29
541-73-1	1,3-Dichlorobenzene	U	0.50	1.0	0.50	0.50	0.18
99-87-6	P-Isopropyltoluene	U	0.50	1.0	0.50	0.50	0.22
106-46-7	1,4-Dichlorobenzene	U	0.50	1.0	0.50	0.50	0.23
95-50-1	1,2-Dichlorobenzene	U	0.50	1.0	0.50	0.50	0.25
104-51-8	N-Butylbenzene	U	0.50	1.0	0.50	0.50	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.50	1.0	0.50	0.50	0.19
95-63-6	1,2,4-Trimethylbenzene	U	0.50	1.0	0.50	0.50	0.29
91-20-3	Naphthalene	U	1.0	1.0	1.0	1.0	0.29
87-68-3	Hexachlorobutadiene	U	0.50	1.0	0.50	0.50	0.19
87-61-6	1,2,3-Trichlorobenzene	U	1.0	1.0	1.0	1.0	0.31
460-00-4	P-Bromofluorobenzene		100%				
2199-69-1	1,2-Dichlorobenzene-D4		100%				

Appendix H

Contaminant Mass Removal Table

Chemical Mass Removal
UniFirst Treatment System
Year 15

Date	Influent Concentration (µg/L) 1,1,1-TCA	1,1-DCE	1,2-DCE	PCE	TCE	Flow (gallons)	Calculated Removal (pounds) 1,1,1-TCA	1,1-DCE	1,2-DCE	PCE	TCE
Oct-06	*2*	*1*	*2*	*245*	*15.5*	1,390,948	0.02	0.01	0.02	2.84	0.18
Nov-06	2	1	2	250	15	1,346,140	0.02	0.01	0.02	2.80	0.17
Dec-06	*2*	*1*	*2*	*285*	*14.5*	1,394,589	0.02	0.01	0.02	3.31	0.17
Jan-07	2	1	2	320	14	1,398,379	0.02	0.01	0.02	3.73	0.16
Feb-07	*2*	*1*	*2.5*	*280*	*14.5*	1,276,564	0.02	0.01	0.03	2.98	0.15
Mar-07	2	1	3	240	15	1,346,262	0.02	0.01	0.03	2.69	0.17
Apr-07	*1.5*	*1*	*2*	*280*	*12*	1,848,638	0.02	0.02	0.03	4.31	0.18
May-07	1	1	1	320	9	1,912,356	0.02	0.02	0.02	5.10	0.14
Jun-07	*1.5*	*1*	*1.5*	*280*	*14*	1,832,668	0.02	0.02	0.02	4.28	0.21
Jul-07	2	1	2	240	19	1,395,372	0.02	0.01	0.02	2.79	0.22
Aug-07	*1.5*	*1*	*2*	*185*	*17*	1,812,437	0.02	0.02	0.03	2.79	0.26
Sep-07	1	1	2	130	15	1,680,070	0.01	0.01	0.03	1.82	0.21
				Year 15 Totals		**18,634,423**	**0.26**	**0.16**	**0.30**	**39.46**	**2.23**

Concentrations in italics are calculated average from previous & following month

Concentrations below detection limit were given a value of 1 µg/L

Previous Years					
Year 14	16,833,074	0.25	0.14	0.26	40.01	2.02
Year 13	18,654,522	0.26	0.16	0.35	52.42	2.70
Year 12	20,280,681	0.25	0.17	0.41	69.02	3.10
Year 11	22,565,190	0.25	0.17	0.42	73.50	3.52
Year 10	19,341,636	0.32	0.16	0.27	74.42	3.86
Year 9	20,131,312	0.73	0.17	0.39	112.69	5.05
Year 8	20,045,000	0.70	0.17	0.25	104.87	4.56
Year 7	19,970,000	0.69	0.16	0.31	131.74	6.12
Year 6	20,900,000	0.23	0.45	0.35	124.71	5.39
Year 5	21,700,000	0.70	0.20	0.50	142.50	5.81
Year 4	22,620,000	1.20	0.00	0.10	171.10	8.76
Year 3	22,540,000	0.00	0.00	0.00	224.33	10.28
Year 2	22,480,000	0.00	0.00	0.00	304.41	12.83
Year 1	24,280,000	0.00	0.00	0.00	331.78	19.34
Cumulative Total (Years 1 through 15)	**310,975,838**	**5.84**	**2.10**	**3.90**	**1,996.96**	**95.57**